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ABSTRACT

The impact of the Feeling Free television series in mainstreamed classrooms was examined to determine if, in what ways, and under what ways it promoted children's awareness, understanding, and acceptance of handicapped people. (Feeling Free is addressed to third through fifth graders to enhance their awareness and understanding of disabled classmates and career opportunities for handicapped.) Twelve upper elementary mainstreamed classrooms, eight experimental and four comparison, in the Greater Boston area participated. Five classrooms viewed two shows a week for three weeks; three viewed one show a week for six weeks. Pre- and post-questionnaires were administered to seven experimental and four comparison classrooms. (One experimental classroom was only posttested to assess pretest effects. Pretesting was found to elevate posttest scores.) As measured by the attitude rating scales in the Children's Attitudes Toward Handicapped People Questionnaire, viewing the series increased children's positive attitudes toward handicapped people on four dimensions: (1) capabilities, skills, and potentials of handicapped people; (2) feelings of handicapped people; (3) handicapped people as friends; and (4) general perceptions of handicapped people. This positive attitude change was not, however, apparent on the two descriptive instruments of the questionnaire. (Questionnaire and data are appended.) (YLB)

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THE EFFECTS OF THE TELEVISION SERIES "FEELING FREE" ON CHILDREN'S ATTITUDES TOWARD HANDICAPPED PEOPLE

Kim Susan Storey

A Thesis Presented to the Faculty of
the Graduate School of Education
of Harvard University
in partial fulfillment of the requirements
for the degree of Doctor of Education

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TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS	i
LIST OF TABLES	v
LIST OF FIGURES	vi
APPENDIX D TABLES	vi
ABSTRACT	viii
CHAPTER 1: INTRODUCTION	1
Context: Mainstreaming and "Feeling Free"	1
General Objectives and Research Hypotheses	1
CHAPTER 2: BACKGROUND	7
Attitude Formation and Attitude Change	7
Attitudes Toward Handicapped People	14
Television and Its Potential for Influencing Attitudes	29
Summary of Formative Evaluation for "Feeling Free"	34
Conclusions From Background Literature	37
CHAPTER 3: METHODOLOGY	42
Overview of Research Methods	42
Subjects	43
Group Treatment	45
Instruments	49
Procedures	56
Coding	59
Scale Construction and Reliability Analyses	65
CHAPTER 4: RESULTS	73
Attitude Rating Scales: General Attitude Toward Handicapped People and Program Specific Attitude	73

Page

Attitude Mean Scale Score Comparisons for Sex, Age, School Context, and Experiences with Handicapped People 88

Descriptive Measures: Write a Story and Definitions of Disability Labels 102

"Feeling Free" Group Discussions 104

CHAPTER 5: DISCUSSION AND CONCLUSIONS 106

Main Hypothesis 106

Hypothesis (a) 113

Hypothesis (b) 116

Descriptive Attitude Measures 119

Conclusion 123

APPENDICES

APPENDIX A: "Feeling Free" Report 129

APPENDIX B: Children's Attitudes Toward Handicapped People Questionnaire (Phase I and Phase II) 135

APPENDIX C: Group Discussion Rating Scale 164

APPENDIX D: Descriptive Data 167

APPENDIX E: Children's Stories 204

REFERENCES 213

VITA 223

TABLES

Table #	Title	Page
3-1	N of Subjects	44
3-2	Sample Characteristics	45
3-3	Summary of Research Design by School	50
3-4	Children's Attitudes Toward Handicapped People Questionnaire: Attitude Rating Scale Items	68
3-5	Test-Retest Reliability Control Group	69
3-6	Posttest Only Group Attitude Mean Scale Score Comparisons With Other Experimental Classes	70
3-7	Final Phase I and II Sample Sizes	72
4-1	Mean Pretest Scores: Experimental vs. Comparison Group	75
4-2	Pre and Posttest Mean Attitude Scale Scores For Experimental and Comparison Groups	77
4-3	Summary of "Significance" of Individual Attitude Items	79
4-4	Experimental and Comparison Group Comparisons on Pretest Scores and Posttest Scores for Each Item	80
4-5	Number of Experimental and Comparison Subjects Who Viewed "Feeling Free" at Home	85
4-6	"Feeling Free" Home View Group Analysis: Mean Post Attitude Scale Scores	86
4-7	Pre and Post Attitude Mean Scale Score Comparisons of Age Groups	89
4-8	True Story Writers Only: Story Attitude Compared With Attitude Mean Scale Scores	93
4-9	Number of Handicapped People in Family Compared With Attitude Mean Scale Scores	96
4-10	Number of Handicapped People Known Compared With Attitude Mean Scale Scores	97
4-11	Response Changes for the Definitions of "Cerebral Palsy"	103
4-12	Response Changes for the Definition of "Dyslexia"	104

FIGURES

Figure #	Title	Page
3-1	Schools/Grades/Classrooms/Handicaps	46
3-2	Field Activity Schedule	60
3-3	Discussion Group Rating Scale	64

APPENDIX D TABLES

Table #		
1	Story Measure: Attitude Portrayed	170
2	Story Measure: "Make-believe" or "True"	172
3	Story Measure: "Disabled-schoolmate" or "Other"	173
4	Story Measure: Length	175
5	Story Measure: Content	176
6	Story Measure: Theme	177
7	Story Measure: Disability Type	179
8	Definitions: Handicapped (Phase I)	182
9	Definitions: Disabled (Phase I)	183
10	Definitions: Handicapped/Disabled (Phase II)	185
11	Definitions: Blind	186
12	Definitions: Deaf	188
13	Definitions: Dwarf	189
14	Definitions: Retarded	191
15	Definitions: Crippled (Uses Crutches or a Wheelchair)	193

Table #	Title	Page
16	Definitions: Cerebral Palsy	194
17	Definitions: Dyslexia	195
18	Familiarity Index: Handicapped People Just Seen (Phase I)	199
19	Familiarity Index: Handicapped People Know Well (Phase I)	199
20	Familiarity Index: Handicapped People in Family (Phase II)	200
21	Familiarity Index: Handicapped People Know or Play With	201
22	Familiarity Index: Type of Experience With Handicapped Family Members	202
23	Familiarity Index: Type of Experience With Handicapped People "Know or Play With"	203

ABSTRACT

Physical barriers that have separated handicapped and nonhandicapped children for more than a century are today being removed with the support of state and federal legislation. Mainstreaming--the integration of disabled children into regular classrooms--is now mandated by the Education for All Handicapped Children Act (PL94-142). To help facilitate the mainstreaming process, the Workshop on Children's Awareness produced "Feeling Free," a series of six television programs designed to promote children's positive attitudes toward handicapped people.

This thesis systematically examines the impact of the "Feeling Free" television series in mainstreamed classrooms. It attempts to determine if, in what ways, and under what conditions "Feeling Free" does, in fact, promote children's awareness, understanding, and acceptance of handicapped people.

The main hypothesis is that children who view the "Feeling Free" series and participate in subsequent classroom discussions of what they viewed will be more aware, more understanding, and more accepting of handicapped people than those who do not. Two subsidiary hypotheses were also explored: (a) Different experiences children have had with handicapped people will affect the impact of the series; and (b) Different types of classroom discussions following viewing of "Feeling Free" will affect the impact of the series.

A total of 12 upper elementary mainstreamed classrooms, 8 experimental classrooms and 4 comparison classrooms, participated in the study. The sample contained an equal number of boys and girls and the mean age of the sample was 9.5. The classrooms were selected from four schools in four different communities within the Greater Boston Area.

The general design of the research was a pre/post quasi-experimental design. We presented the six 15-minute "Feeling Free" programs to handicapped and nonhandicapped children in eight classrooms. Five classrooms viewed two

shows a week for three weeks and three classrooms viewed one show a week for six weeks. We observed and rated teacher-led discussions following viewing of "Feeling Free." Questionnaires were administered before and after viewing to seven of the eight experimental classrooms and to an additional four comparison classrooms who did not view. One experimental class received only the post questionnaire in order to assess existence of effects of pretesting. The questionnaire was designed to determine children's familiarity with handicapped people, as well as children's attitudes toward handicapped people, and to assess changes in these areas following viewing of "Feeling Free." The questionnaire consisted of an open-ended story, requests for definitions of disability labels, a disability familiarity index, and two attitude rating scales which assessed children's attitudes toward handicapped people in general and children's attitudes toward program specific content.

The main hypothesis of this thesis was confirmed: Children who viewed the "Feeling Free" television series and participated in classroom discussions following viewing were more aware, more understanding, and more accepting of handicapped people than those who did not, as measured by the attitude rating scales in the Children's Attitudes Toward Handicapped People Questionnaire. Children increased in positive attitudes toward handicapped people in general and they were able to recall the specific abilities and lifestyles of the handicapped people presented in the programs.

Viewing "Feeling Free" increased children's positive attitudes on four dimensions reflecting attitudes toward handicapped people: (1) Capabilities, skills, and potentials of handicapped people; (2) Feelings of handicapped people; (3) Handicapped people as friends; and (4) General perceptions of handicapped people. The most increase in children's positive attitudes

toward handicapped people occurred in the dimension Capabilities, skills, and potentials of handicapped people, which was reflected in much of the "Feeling Free" program content. Viewing "Feeling Free" also increased children's positive attitudes toward each of the disabled people presented in the programs. Thus attitudes toward blindness, deafness, dwarfism, dyslexia, and toward people who use crutches or wheelchairs were affected.

Analyses which examined age and sex indicated that the series is equally effective for both boys and girls and for children 8 to 12 years old.

A comparison of the experimental class which received only the posttest and the other experimental classes indicated that the posttest only class had significantly lower attitudes than the other experimental classes toward the program specific content but not toward handicapped people in general. These findings suggest that the pretest may have had an effect on the posttest with the experience of taking the pretest possibly elevating the posttest scores, but for the program specific items only.

The two subsidiary hypotheses were not confirmed: (1) Although children's attitudes differed on the basis of amount and kind of experience they had had with handicapped people, these differences in experience did not affect the impact of the series; (2) Different types of classroom discussions following viewing of "Feeling Free" did not affect the impact of the series.

Although positive attitude change was detected on the attitude rating scales, this change was not apparent on the two descriptive instruments: There was a significant increase in children's ability to label on only two out of the eight disability terms: "cerebral palsy" and "dyslexia." There were no apparent differences in response changes between the experimental and comparison children's stories about handicapped people along dimensions

of attitude, content, and theme.

The failure of the Write a Story measure to detect attitude change may be due to the inability of some children to meet the demands of such an unstructured instrument--demands on language, thought processes, creativity, and writing ability. However, the attitude rating scales used in this study were able to measure attitudes toward handicapped people on a variety of dimensions, to indicate that the attitudes are generalizable, and to determine the boundaries of the attitude concept learned. Both unstructured and structured attitude techniques have possibilities and limitations, and both techniques are needed to provide information about attitudes and attitude change.

In conclusion, this research suggests that the television medium can be used successfully to enhance older elementary school children's positive attitudes toward handicapped people. The successful integration of handicapped children in our school systems, socially as well as academically, can only be achieved with the preparation and cooperation of all concerned, especially the students themselves. This study demonstrates that "Feeling Free" is a step in facilitating this preparation and cooperation and that the television medium has the potential to promote positive attitudes between handicapped and nonhandicapped children.

CHAPTER ONE

INTRODUCTION

...and there was a boy who was blind. His name was Chris. When he went to a new school everybody teased him. But he didn't know what to do...What could he do?...What would you do?

Mark, age 9

Context: Mainstreaming and "Feeling Free"

In September, 1978, the Education for All Handicapped Children Act (Public Law 94-142) became fully effective. Handicapped children, who in the past were segregated in restrictive "special" settings, are now entering regular public schools and classrooms. For the first time they are claiming their full rights to participate in the educational and social mainstream. And for the first time, nonhandicapped children are coming into close and sustained contact with their handicapped peers.

To enhance children's awareness and understanding of their disabled classmates, the Workshop on Children's Awareness (a division of the American Institutes for Research in Cambridge, MA) created "Feeling Free." This television series, addressed primarily to third through fifth graders, includes both six 30-minute programs designed for national broadcast over the Public Broadcasting Stations as well as

six 15-minute edited versions designed for in-school use.[1] The shows received an enthusiastic critical response in the press and a significant national audience, as illustrated in the enclosed report (Appendix A). This year, along with increased mainstreaming, many children both handicapped and nonhandicapped will be viewing and reacting to "Feeling Free" in classrooms throughout the country.

Formative evaluation played an integral role throughout the production of "Feeling Free" (Storey, 1977). For instance, in preliminary research prior to the development of any "Feeling Free" segments, children were interviewed to determine their familiarity with and understanding of disabled peers. Their frank questions were revealing:

> Is it like a prison to be blind? Is it scary?
> Does it hurt you to be deaf?
> What's it like living in a wheelchair?
> How did he get that way?
> Are handicapped people ever happy?

Such questions reflect mystery and misconception about those who cannot see, hear, walk, speak, or understand in the same ways as most people.

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[1] Public Broadcasting Stations nationally broadcast the full-length "Feeling Free" series in April, 1978, and rebroadcast it in November, 1978. Also, Massachusetts Educational Television, as well as other Instructional Television networks throughout the country, broadcast the in-school versions in Spring, 1978. This year, Scholastic Magazines, Inc. is distributing the classroom series, together with a variety of related print materials, to schools throughout the country.

And not surprisingly. The isolation of handicapped people from the mainstream of society has only heightened the mystery of handicapped people (Blatt and Kaplan, 1966; Blatt, 1973). Children quickly learn that talking about handicapped people is taboo; questions are either abruptly answered or ignored. Handicapped children's need to be understood and their right to opportunities for development to their fullest potential, both in school and in their future occupational and community settings, remain unfulfilled as long as ignorance and myths about disabilities flourish (Brightman, 1976; DHEW Advisory Panel, 1976; Harmonay, 1977).

Today, with the support of state and federal legislation, the physical barriers that for more than a century separated handicapped and nonhandicapped children are being removed (Beery, 1972; Gearheart and Weishahan, 1976).[2] However, physical integration does not necessarily mean social integration. Recent studies indicate that the handicapped child is likely to be even more socially isolated in many integrated settings than he had previously been in more restrictive environments (Hobbs, 1975), since the conditions fostering positive interactions are lacking. As Edwin Martin, Commissioner of the Bureau of Education for the Handicapped has noted, "increasing the positive interactions between handicapped and nonhandicapped learners...is the essence of mainstreaming" (Martin, 1974). For the most part, the attitudes and reactions of both

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[2] In some school districts, although the Legislation has been passed, the realities have not yet begun to occur.

the nonhandicapped and handicapped children toward the mainstreaming situation have been ignored. It is the responsibility of educators to provide the necessary preconditions for these children to get to know one another, to respond to the invitation of mutual understanding.

The "Feeling Free" television series of six programs was created in response to this need. The series is an invitation to meet five children, twelve to fourteen years old, each of whom has a disability. The disabilities include dwarfism, cerebral palsy, deafness, blindness, and dyslexia. Each child is featured in one 15-minute program which includes three different segments. The "Close-up" presents a film portrait of each individual at home, at school, and at play, offering selected experiences and insights into his or her life. In "Questions," the five regulars, joined by other handicapped and nonhandicapped friends, direct questions to the child featured in the program. This segment reveals the children's thoughts about being disabled as it models candid and open approaches to satisfying curiousities and initiating friendships. A short "Spotlight" segment demonstrates a special hobby or game enjoyed by each child.

The sixth program begins with the children discussing what they want to be when they grow up and then continues with two segments featuring adult guests. The "Close-up" presents a film portrait of a young man in a wheelchair, and in the final segment the children's "Questions" are directed to a blind woman who uses a guide dog.

What kind of impact can a television series such as this have on handicapped and nonhandicapped students' interactions in mainstreamed

classrooms? During the series' formative evaluation we were encouraged by approximately 2,000 children who, through group discussions designed to elicit guidelines for program development, gave critical though often favorable reactions to preliminary segments. Their responses were candid and provocative, revealing a new openness in talking about handicapped people. They reflected on their previous misconceptions and uncertainties about disabilities and began to attribute positive characteristics to handicapped people, realizing, for instance, that handicapped people are competent and can have friends.

General Objectives and Research Hypotheses

This thesis systematically examines the impact of the "Feeling Free" television series in mainstreamed classrooms. It attempts to determine if, in what ways, and under what conditions "Feeling Free" does, in fact, promote children's awareness, understanding, and acceptance of handicapped people.

The main hypothesis is that children who view the "Feeling Free" series and participate in subsequent classroom discussions of what they viewed will be more aware, more understanding, and more accepting of handicapped people than those who do not. Two subsidiary hypotheses were also explored: (a) Different experiences children have had with handicapped people will affect the impact of the series; and (b) Different types of classroom discussions following viewing of "Feeling Free" will affect the impact of the series.

The general design of the research was a pre/post quasi-experimental design. We presented the six "Feeling Free" programs to handicapped and nonhandicapped children in eight upper elementary school classrooms. Five classrooms viewed two shows a week for three weeks and three classrooms viewed one show a week for six weeks. We observed and rated the teacher-led discussions following viewing of "Feeling Free." Pre and post questionnaires were administered to seven experimental classes who viewed the series and to four comparison classes who did not view. An additional experimental class received the posttest only. The questionnaire was designed to determine children's familiarity with and attitudes toward handicapped people and to assess changes in these areas following viewing of "Feeling Free."

CHAPTER TWO

BACKGROUND

This chapter is divided into four sections. The first reviews the literature on attitude theory, focusing on attitude formation and attitude change. The television series "Feeling Free" is viewed as a medium of communication for persuasive messages. The second section presents an overview of studies of attitudes toward handicapped people which are relevant to the present investigation, studies which utilize a variety of techniques and sample populations. I have focused mostly on those studies which are specific to the attitudes of children toward their handicapped peers, as well as the relationship of these attitudes with age, sex, and experiences with handicapped people.

The third section explores the influence of children's prosocial television programming on children's developing attitudes. Hypotheses are presented concerning the potential use of children's television, and specifically the "Feeling Free" series, for developing more positive attitudes of nonhandicapped children toward their handicapped peers.

The fourth section summarizes the formative research of "Feeling Free." The results of this research suggest that the "Feeling Free" series may be a vehicle for promoting positive attitude change in mainstreamed classrooms.

Attitude Formation and Attitude Change

Studies about attitude formation and change provide insight into

ways the television medium can communicate persuasive messages and affect the receiver of these messages, the viewer. Attitude formation and attitude change has been an important area of investigation for many years. The field of study is huge and the attitude research literature contains many inconsistencies and controversies (Fishbein and Ajzen, 1972). As Fishbein and Ajzen remark, "Considering that it is now 110 years since Herbert Spencer (1862) first employed the term attitude in the psychological literature, it is somewhat incredible that the one thing on which most investigators agree is that 'there exists no commonly accepted definition of the (attitude) concept.' (Elizur, 1970, p. 36)." Within the next few pages, I will briefly present the most commonly held definitions of attitude and the theoretical frameworks in which attitudes have been studied, followed by a review of the most recent literature on attitude formation and attitude change which is directly relevant to the present investigation.

Definitions

Definitions of attitude are varied and emphasize different aspects of the attitude concept. Allport (1935) proposed that "an attitude is a mental and neutral state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related" (p. 810). Allport emphasized the behavioral implications of attitudes.

On the other hand, Doob (1947) defined an attitude as "an implicit, drive-producing response considered socially significant in the

individual's society" (p. 138). Doob emphasized the components of an attitude rather than its behavioral implications.

Today a third definition is more commonly accepted: "An attitude toward any given object, idea, or person is an enduring system with a cognitive component, an affective component and a behavioral tendency. The cognitive component consists of beliefs about the attitude object; the affective component consists of the emotional feelings connected with the beliefs and the behavioral tendency is what Allport referred to as the readiness to respond in a particular way" (Freedman, Sears, and Carlsmith, 1970, p. 283).

Theoretical Frameworks

The four major theoretical frameworks within which attitudes have been studied include: (1) conditioning and reinforcement, which views attitudes as learned habits; (2) incentives and conflict whereby a person acquires attitudes which maximize individual gains; (3) functionalism, which stresses the function attitudes serve for the individual; (4) cognitive consistency, which asserts that people seek to balance their cognitions and behavior, accepting ideas which are consistent with previous attitudes (Freedman, et al., 1970). The four approaches do not contradict each other. Rather, they emphasize different factors in their explanations of attitude formation and change. Each of the frameworks can be applied to an understanding of how the television medium, and in particular "Feeling Free," may function to affect attitudes.

For example, Hovland, Harvey, and Sherif (1957), regarding the conditioning and reinforcement model, assumed that when people acquire information they also learn the feelings and values associated with these facts. He suggested the mechanisms of acquiring these attitudes are association, reinforcement, and imitation. These mechanisms can be applied to the formation of attitudes through the television medium. For example, if the viewer associates positive traits with a handicapped person presented in the programs, he is likely to form a positive attitude toward that person. Viewing six programs which present positive characteristics of handicapped people will serve to "condition" and "reinforce" this positive attitude. Another important aspect of this theory is imitation, which is especially relevant to the way children learn values and attitudes. This area will be discussed in more detail in the section on television, page 29.

Another example of how attitude theory can apply to the effects of the television medium is the "cognitive consistency" framework. Within this framework some researchers have stressed the dissonance theory, first proposed by Festinger (1954). Briefly, the formation of an attitude consists of two alternatives, the chosen alternative which has positive attributes and the rejected alternative which has negative attributes. Dissonance occurs when a person realizes that the chosen object has some negative attributes and/or the rejected object has some positive ones. The result is for the person to move toward consistency. Thus, viewing "Feeling Free" may cause dissonance in a child who has already formulated negative attitudes toward handicapped people and views

positive attributes of handicapped people presented in the programs. The child may reduce the dissonance either by dropping his old attitudes and increasing his positive attitude toward handicapped people, or by rejecting the television message as invalid and retaining his original attitudes.

Research on Persuasive Messages

Recent research on attitudes has examined how attitude change can be induced by persuasive messages. This research provides a background for understanding the potential of the medium of television for influencing childrens' attitudes toward handicapped people. Theory concerning this issue is rooted in information processing concepts. Persuasion occurs in a complex informational environment. The important components of a communication act include the message, which is the primary source of information, as well as the attributes of the communicator and the identity and reactions of the audience. Information within the person receiving the message includes prior attitudes and behaviors as well as various reactions which may be experienced while receiving the message (Eagly and Himmelfarb, 1978). McGuire's (1969) model of information processing emphasizes that attention and comprehension must occur prior to the acceptance of information. Theorists and researchers have emphasized the importance of comprehension of the message for facilitating persuasion (Eagly, 1974). And, in addition to comprehension, attitudes will only be affected if the receiver accepts or yields to the message (McGuire, 1969). Thus, this research indicates that the effectiveness

of "Feeling Free" in influencing children's attitudes depends on children's comprehension of the message portrayed as well as their degree of acceptance of the message.

Research has also focused on the message receiver's cognitive responses to the stimulus presented. For example, Greenwald (1968) and Insko, Turnbull and Yandell (1974) asked recipients to list their thoughts during or after they receive a persuasive message. These thought processes are thought of as mediators which effect persuasion. Attitude change is lessened if unfavorable thoughts are induced, whereas attitude change is increased if favorable thoughts are induced. Thus, the effects of "Feeling Free" may be dependent on the children's concomitant thoughts and associations during viewing.

Research has also examined the effects of the medium of communication. Research has shown that live or videotaped messages are more influential in producing attitude change than are audiotaped messages; written messages are least effective (Eagly and Himmelfarb, 1978). This indicates that the television series "Feeling Free" has potential for influencing attitudes. Research on the effects of the television medium is described in more detail in the section on television, page 29.

Attitudes and Behaviors

An area of research which has attracted much debate is the relation between attitude and behavior. Research conducted in the late 1960's suggested that attitudes did not predict behavior (e.g., Wicker, 1969). However, recent studies have demonstrated that under appropriate conditions attitudes can predict behavior (Reviews of this attitude-behavior

literature include: Fishbein and Ajzen, 1972; Calder and Ross, 1973; Kelman, 1974; and Schuman and Johnson, 1976). Fishbein and Ajzen (1972) report that, "in about 60 studies that measured or manipulated 'attitude,' 15 reported a positive relationship with 'behavior,' 15 reported no relation, and the remainder found relations under some conditions but not under others" (p. 528). Fishbein and Ajzen stress that all three components of attitude, cognitive, affective, and behavioral, must be measured for attitude to adequately predict behavior. In addition, a variety of other variables, such as norms and motivation may mediate the influence of attitude on behavior, although research has not determined the appropriate conditions under which a relationship between attitudes and behaviors will be formed.

The relationship between attitudes and behavior has also been shown to depend on opportunities for acting out the behavioral implications of one's attitudes. For example, Regan and Fazio (1977) showed that attitudes were most related with behavior when the subject had direct behavioral interaction with the attitude object. Fazio and Zanna (1976) demonstrated that there was a correspondence between attitude and behavioral interaction for those subjects who had an opportunity to review and evaluate their previous behaviors in relationship to an attitude object compared with those subjects who did not have such an opportunity.

This theory of "acting out" one's attitudes may be especially relevant to the impact of the "Feeling Free" series in mainstreamed classrooms. The children will have opportunities to act out their newly

acquired attitudes and determine the benefits of their new interactions. The present investigation of the "Feeling Free" series does not, however, separate out the many components linking attitude formation with behavior change. It is limited to an investigation of changes only in attitudes, with the assumption that such changes are in some meaningful way associated with behavior change.

In summary, the field of attitude research is complex and controversial. This study does not attempt to address the theoretical issues currently being debated, but seeks to use a generally accepted framework of attitude formation and change as a basis for estimating the impact upon attitudes of a children's television series.

Attitudes Toward Handicapped People

Within the field of attitude research, for the past forty years, psychologists, physicians, and rehabilitation personnel have conducted numerous studies on attitudes specifically focused on issues of disability. Harold E. Yuker (1965), forerunner of this field for the past twenty years, defines attitude as "one type of predisposition toward behavior" (p. 15). He believes that knowing a person's attitude helps us to understand and predict his behavior. Specifically, regarding attitudes toward disability, Yuker says that understanding a nonhandicapped person's attitudes toward a handicapped person will help us understand the interactions between the two people. Negative attitudes toward a handicapped person result in avoidance behavior and an unwillingness to have the person as an associate, friend, neighbor, or employee. In

comparison, positive attitudes toward a handicapped person result in a desire to interact with the person, a willingness to consider the person as an associate, friend, neighbor, or employee, and recognition of the person as a person first, and as someone with a disability, second.

A variety of techniques have been used with adults to measure attitudes toward handicapped people, including interviews, questionnaires, Likert scales, social distance scales, adjective check-lists, sociometric choices and sentence-completions (Yuker, Block, and Younng, 1966). Most studies which have investigated adult attitudes toward handicapped people have used the Attitude Toward Disabled People (ATDP) scale developed by Yuker, Block, and Campbell (1960). Measures used to assess children's attitudes are primarily sociometric measures and picture projective tests.

Attitude instruments for measuring adults' and children's attitudes toward handicapped people differ in whether they contain items which refer to specific disabilities such as blindness and deafness or items which refer to disability in general. In addition, most of these instruments are designed to be used with only nonhandicapped populations. The attitudes of handicapped people toward disability have rarely been studied (Yuker, 1965).

The present investigation will utilize an instrument which contains attitude items which refer to handicapped people in general as well as items which refer to specific disabilities. Children may respond differently to the two types of measures; items regarding specific disabilities may be easier for the child to conceptualize whereas items

regarding handicapped people in general test generalizability of attitude change. In addition, since the questionnaire will be administered in mainstreamed classrooms, the questionnaires will be designed for administration to both handicapped and nonhandicapped children.

A review of the literature about adults' and children's attitudes toward handicapped people indicates that two kinds of attitude studies predominate. The first investigates the types of attitudes people have toward disability. The second investigates the relationship between attitudes toward disability and other variables such as age, sex, and experience. Although Yuker et al., (1966) warn that many of the attitude studies may be difficult to interpret due to a failure to report the reliability or validity of the instruments and due to some technical difficulties, some consistent findings do emerge.

Types of Attitudes Toward Handicapped People

Studies designed to determine what types of attitudes adults have toward handicapped people usually rely on unstructured questionnaires or interview schedules. For example, Jennings (1951) conducted interviews with employers, exploring their perceptions of handicapped people in career settings. She reports from her interviews that employer attitudes reflect a lack of confidence in the physical abilities of handicapped people, exaggerated sympathy, and perceived unequal status. Other studies, including those which utilize adjective checklists (e.g., Rusalem, 1950 and 1965) and attitude scaling techniques (e.g., Likert, 1932), generally indicate that adults express negative attitudes toward

handicapped people (Yuker et al., 1966). Handicapped people are perceived as less competent and of a lower social status than other people (Garrett, 1964).

Unstructured questionnaires, interview schedules, and attitude scales have not been used to assess children's attitudes. Instead, most studies rely on one of a variety of sociometric measures or picture projectives. For example, in a sociometric study by Force (1956), the social status of handicapped children in an elementary school setting was examined. Children were asked to choose other students as friends, playmates, and workmates. The results indicated that the physically disabled children were not as well accepted as the nondisabled children in the classroom setting. In a sociometric study by Richardson (1973) on eight to fourteen year old children in a camp setting, nondisabled children were selected disproportionally more often as "best friends" than were children with visible disabilities. In addition, other sociometric studies have shown that children express more negative attitudes toward amputee peers than toward nonamputee peers (Center and Centers, 1963), toward crippled children as compared with noncrippled children (Billings, 1963), toward retarded classmates as compared with nonretarded classmates (Goodman, Gottlieb and Harrison, 1971), toward hearing-impaired classmates as compared with nonhandicapped classmates (Justman and Maskowitz, 1957), and toward blind classmates as compared with nonhandicapped classmates (Jones, Lavine and Shell, 1972).

Picture projective tests have also been used in attitude studies with children. In one study, children viewed a set of pictures depicting

six "crippled" and six "noncrippled" children and were asked to complete the face with either a happy or a sad expression. Nonhandicapped children, as well as handicapped children, portrayed crippled children as sadder than noncrippled children (Henri, 1949). It is interesting to note that in this study the handicapped children's attitudes were the same as the nonhandicapped children's attitudes.

In another picture projective study, Richardson and Royce (1968) attempted to determine the relative salience of the skin color and physical disability in influencing children's preference for other children. Children were asked to give rank-order preferences for drawings of people who differed on the dimensions of skin color and handicap. The results indicated that physical handicaps were significantly more influential than skin color in determining preference. Similarly, White (1978) found that the presence of a visible disability functions as a more powerful dimension of perceived difference than do the dimensions of age, sex, and activity preference.[1]

Two studies in the 1960's are interesting examples of alternative measures designed to assess children's attitudes. Bateman (1962) used a 50-item, 3-point (yes, unsure, no) rating scale. Bateman asked nonhandicapped children to rate activities which blind children had the ability to do. (No reliability or validity were reported.) However,

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[1] However, I would like to note that I do not believe that White's criterion for activity preference--preferring to "play" vs. "watch TV"--is an adequate distinguisher of activity preference. Most children like to do both activities equally well and would not be less attracted to someone with one or the other preference.

this study did not attempt to portray children's attitudes as "positive" or "negative" but rather made comparisons between urban and rural children's attitudes and between children's attitudes and the degree of contact they had had with blind people. The results are presented in the next section.

In the second example, Billings (1963) used two projective techniques. The first was a "Tell me a story" technique, in which children were asked to write stories about a picture of a girl labeled as either "the girl in the picture" or "a little crippled girl." The second technique involved completing sentences with "starters," some of which related to "cripples" and others which did not. An analysis of the data in two categories, social responses (acceptance vs. rejection) and value responses (worthy vs. devalued) on a 4-point scale, revealed three major findings: (1) Noncrippled children held negative attitudes toward their crippled peers; (2) Older children (11.8 yrs.) had more negative attitudes toward crippled people than did younger children (6.5 yrs.); and (3) Highly adjusted children (as rated by their teachers) had more negative attitudes toward crippled people than did those rated low in adjustment.

In sum, a variety of measures, including unstructured questionnaires, interviews, and attitude scales has been used in attitude studies with adults. However, investigators of children's attitudes rely primarily on sociometric measures which assess attitudes toward classmates and campmates and on picture projections which examine children's projective responses toward pictures and photographs of handicapped people. Generally, the studies indicate that adults and children express more negative attitudes

toward handicapped people than toward nonhandicapped people. In addition, one study found similar negative attitudes among handicapped children. Billings (1963), commenting on children's attitudes fifteen years ago, reported that handicapped children are generally less well liked, less valued and less accepted by their nonhandicapped peers. However, it would not be fair to proceed without acknowledging three recent studies which portray a different attitudinal picture of today's children.

Rapier, Adelson, Carey and Croke (1972) administered to elementary school children a semantic differential rating technique before and after a year-long integration experience. On some of the items 75% of the children held positive attitudes toward handicapped children before the integration experience. They perceived the handicapped children as happy, smart, brave, unselfish, and as having many friends. And contact with handicapped children did not change these positive perceptions.[2]

Westervelt (19[illegible]3) used a picture sociometric measure in conjunction with a social distance questionnaire and an activity preference scale to assess the influence of a film on the attraction of nonhandicapped children toward physically handicapped peers. Criterion for participation in the study was medium or low attraction to a child in a wheelchair as compared with a nonhandicapped child as measured by the pretest. Selection of only 46 children out of the original sample of 98 children

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2. Rapier et al., conclude that integration did develop more positive attitudes in nonhandicapped children toward handicapped children. However, it must be noted that this conclusion is based on only 3 significant changes on Rapier et al.'s attitude scale out of a total of 20 items.

indicates that more than half of the sample already had positive attitudes toward people in wheelchairs.

Similarly, White (1978), also utilizing a picture projective measure, found that children held surprisingly positive attitudes toward handicapped people. In fact, when children were presented with a picture of a nonhandicapped child (who differed from them on dimensions of age, sex, and preferred activity) and a handicapped child (who did not differ on these dimensions), they overwhelmingly chose the handicapped child as their preferred playmate. White partly attributes this choice to the increased public awareness of handicapped people, due to controversies over recent laws designed to provide handicapped people with more rights (Federal Rehabilitation Act of 1973). She states, "The subjects in this study could not have been unaffected by the increased attention the plight of the handicapped has been given by the mass media" (p. 21).

White also cites studies on adult attitudes toward handicapped people in which the subjects had a tendency to attribute many positive characteristics to a person based only on the knowledge that the person is handicapped. Dion, Berscheid and Walster (1972), refer to this as a type of "reverse halo effect." Thus, although the majority of earlier attitude studies indicate that nonhandicapped adults and children have negative attitudes toward handicapped people, more recent studies indicate that there may be a trend toward more positive attitudes toward handicapped people, as well as to exhibit a stereotyped positive attitude toward them.

However, it remains for future studies to confirm these findings of children's positive attitudes toward handicapped people. Sociometric and picture projective measurement techniques may be inappropriate for tapping the actual attitudes of today's test-wise children. In addition, the relationship of attitudes and behavior warrants further investigation.

Relationship Between Attitudes Toward Disability and Age, Sex, and Experience

Other attitude studies examine the relationship between attitudes and other variables, yielding some important insights into children's developing attitudes. The studies suggest that children may react differently to the "Feeling Free" series on the basis of age, sex, and previous experience with handicapped people. These studies rely on objective measures which utilize scales of acceptance-rejection or positive-negative affect. Many of these studies used the Attitudes Toward Disabled People (ATDP) scale developed by Yuker et al., (1960). This scale is "designed to provide an adequate positive-negative scaled measure of attitudes toward the disabled with evidence of reliability and validity" (Yuker et al., 1966, p. 17).

Age. Yuker et al., (1966) present a comprehensive report of the findings on the relationship of age to attitudes of nondisabled people toward disabled people. They summarize the studies assessing this relationship:

> Of the six studies using the ATDP, four reported no significant relationships between age and ATDP scores (Bell, 1962; Gilliland, 1965; Siller, 1963 & 1964; Siller & Chipman, 1965) and two reported significant relationships (Wilson, 1963 & Siller, 1964). In addition, three studies using measures of attitudes toward disabled other than the ATDP reported either differences in attitudes between age groups or significant correlational data (Simmons, 1949; Auvenshine, 1962 and Lukoff and Whiteman, 1963). Thus five studies reported a relationship while four did not (p. 45).

Yuker interprets these findings as follows:

> Although these studies are not directly comparable because of difference in age ranges and other sample characteristics, and in attitudes toward specific disabilities measured, it is noted that when significant relationships were found, the younger age group was reported to have more favorable attitudes toward disabled persons than the older age group, except at the college level (p. 46).

However, although these studies seem to indicate that younger subjects express more positive attitudes, none of these studies reported above include subjects below the junior high level. The few studies whose samples are comprised of elementary school age children have reported significant but contradictory findings.

For example, Knittel (1963) used a Picture Sociometric Attitude Scale to measure attitudes toward disability in the elementary grades. Children who had disabled siblings were compared with children without a disabled sibling or friend. For the sample of the children with disabled siblings, children were found to be more accepting in the intermediate grades as compared with the primary grades. The opposite was true of the children without a disabled sibling or friend; for these subjects the intermediate grades were less accepting than the primary grades.

However, Szuhay (1961) found contradictory results with a nondisabled

sample using the same scale. For children without a disabled sibling or friend fourth and sixth grade children expressed more positive attitudes than did kindergarten children. Szuhay did not control for contact with disabled siblings. In addition, Richardson (1970) reported that children as young as first grade consistently had more positive attitudes toward nonhandicapped as compared with handicapped children. Since comparative studies on age and attitudes with children are so limited, the implications of these studies are still inconclusive and further research is needed. These results do suggest, however, that children at different ages may respond differently to the "Feeling Free" series.

Sex. Yuker et al., (1966) present a comprehensive summary of studies which examined the difference between males' and females' attitudes toward disability. In those studies which utilized the ATDP scale, there is some discrepancy in the results. Although the majority of the studies report a significant relationship between sex and ATDP scores, there are studies which report no relationship. Yuker attributes some of the discrepancy to the varying statistical techniques. In every study where significant results were reported, females had more positive attitudes than males. All of these studies using the ATDP were based on adult samples.

Studies examining sex differences which used measures other than ATDP have included child samples. These studies report results similar to those with adults and the ATDP scale. For example, Moed, Wight, Feshbach and Sandry (1963), using the Children's Seashore Picture Story

Test, found that girls have more positive attitudes than boys. Szuhay (1961), using the Children's Picture Sociometric Attitude Scale, also found that girls had more positive attitudes than boys toward handicapped people. In addition, in a study by Blanton and Numnally (1964) using a semantic differential measure, deaf girls rated blind people, deaf people, and themselves significantly more favorably than did deaf boys.

Thus the large number of studies which report sex differences seem to indicate that, for both adults and children, females have more positive attitudes toward handicapped people than do males. These studies indicate that girls may respond more positively to the "Feeling Free" series than will boys.

Experience With Handicapped People. Many studies present interesting results on the relationship between attitudes and contact and experiences with handicapped people. Some of these studies seem to support the hypothesis set forth by Homans (1950), Yuker, et al., (1960), Yuker (1965), and Yuker et al., (1966), that increased contact with handicapped people results in more positive attitudes.

Yuker et al., (1966) summarized data from over twenty studies which investigated this hypothesis. In more than half of these studies, people who had contact with disabled people reported more positive attitudes on the ATDP as compared with people who had less contact. For example, Bateman (1962) utilized a measure rating the capabilities of blind children on a sample of sighted children. The sample was divided into two groups, "know other blind children" and "do not know other blind children." The children with contact rated blind children higher

than did those with no contact. In addition, attitudes became more positive as the number of blind children known increased.

In another review of the literature by Donaldson and Martinson (1977) in which the sample population was composed entirely of children, four out of the seven studies reviewed showed significant positive attitude change toward handicapped people. These positive changes were most often attributed to the child's experience of being in an integrated setting. Other studies have also reported that integration experiences, and particularly those which are enjoyed, lead, most reliably, to positive attitude change among nondisabled children (Rucker, Howe, and Snider, 1969; Strauch, 1970; Goodman, Gottlieb and Harrison, 1971; Rapier, et al., 1972; Richardson, Ronald and Kleck, 1974; Guralnick, 1976).

On the other hand, the two literature reviews above also indicate that a number of studies has found that nonhandicapped children have negative attitudes toward their handicapped peers even in integrated settings. This finding is emphasized in a review of literature by Wylie (1976). In addition, a number of studies already cited in this paper, which indicate that nonhandicapped children have negative attitudes toward their handicapped peers, were conducted in integrated settings (e.g., Force, 1956; Justman and Maskowitz, 1957; Goodman, Gottlieb, and Harrison, 1971; Jones, Lavine, and Shell, 1972; Richardson, 1973).

In another study, Gottlieb, Cohen, and Goldstein (1973), utilizing a paired adjective rating scale, found that children who had little or

no school contact with retarded children had more positive attitudes toward retarded peers than did those children who had opportunities to observe and interact with retarded peers in a school containing mainstreamed retarded children. Gottlieb et al., conclude that "merely integrating EMR children without offering support and explanation to them, as well as to their peers, is unlikely to result in greater acceptance" (p. 10).

Studies which examine attitude change as a result of experience are mostly limited to examining already existing integrated situations. In all the studies I reviewed, only two utilized an intervention technique in an attempt to change attitudes toward handicapped people. Lazar, Gensley, and Orpet (1971) presented to young mentally gifted children a unit on creative handicapped Americans as well as invited handicapped guests to talk with the children about their work. The ATDP questionnaire was administered to the children before and after the four week program, as well as to a matched control group who did not participate in the program. The results indicated that the children who participated in the program had a more positive change in their attitudes than did those children who did not participate.

In the second intervention study, Westervelt (1978) conducted a controlled experiment in which one group of children viewed a film in which handicapped children in wheelchairs participated in physical and recreational activities with nonhandicapped children. Two pre and post picture sociometric measures were administered to both groups. On the first measure, a social distance questionnaire, the experimental group

was more attracted to pictures of a child in a wheelchair than the control group. However, on the second measure, activity preference questionnaire, only girls in the experimental group showed an increase in similarity of interests and only in the physical education area. In addition, these effects were not found nine days later.

In sum, it appears as if children's experiences with mainstreamed students may not necessarily result in more positive attitudes toward their handicapped peers. Rather, such experiences may even intensify children's negative attitudes. Gottlieb, et al., (1973) suggest that more positive attitudes may occur only if we help the students, both handicapped and nonhandicapped, to understand the mainstreaming experience.

However, of the two intervention studies which attempted to provide positive experience and understanding, just one reports confidently that children's positive attitudes were increased by the intervention program. Thus it remains unclear whether integrated experiences alone, or integrated experiences supplemented by special programs, can help to develop children's positive attitudes toward handicapped people. As discussed in the section on attitude formation and attitude change, increased and reliable positive attitude change may occur if children have opportunities to act out their newly acquired information and attitudes about handicapped people.

Thus, viewing the "Feeling Free" series will provide children with the opportunities to observe new and different interactions with handicapped peers. Presenting the series in mainstreamed classrooms will provide opportunities for modelling interactions, thus increasing the

chances of the effectiveness of "Feeling Free" for producing reliable increases in children's positive attitudes toward handicapped people.

Television and Its Potential for Influencing Attitudes

Television plays a powerful role in the lives of children. It is a source of information beyond the immediate experience of the child. It is a medium through which a child can observe a variety of people dealing with their feelings, needs, and problems. The television series "Feeling Free" presents the opportunity for children to learn about and experience a variety of handicapped people through a medium which is entertaining and nonthreatening. This may be an important source of social knowledge for those children who have had limited contact with handicapped people. What is the potential of the television medium, and "Feeling Free" specifically, for influencing children's attitudes and behaviors toward handicapped people? Research on the effects of children's television suggests that this medium may have the potential for positively influencing children's developing attitudes and behavior.

Observational learning is the main process by which children learn from television. This type of learning has been defined by Liebert, Neale, and Davison (1973) and by Williams and Crane (1974) as "the way in which the behavior of children (and adults) changes as a result of exposure to the actions and values of others." Bandura (1965) states that children learn new and unfamiliar ways of behaving from observing the behavior of others; television has increased the opportunities for modeling behaviors.

Research in both laboratory and field studies has demonstrated that children who view prosocial content on television are likely to imitate the behaviors observed. Most of these studies have been restricted to the television programs "Mr. Rogers' Neighborhood" and "Sesame Street" and have utilized only preschool-age children. For example, prosocial segments of "Sesame Street" which portrayed cooperation were evaluated by Paulson, McDonald, and Whittemore (1973). Children who viewed the segments correctly identified and labeled cooperation and were more cooperative than children who did not view. However, the cooperation situations resembled those in the segments, and generalization of cooperative behavior to other contexts was not examined. In several other evaluations, generalization was examined and the results indicated that there was a failure to model prosocial behavior in contexts which differed from the television presentation (Leifer, 1975; Paulson, 1974).

"Mr. Rogers' Neighborhood," a show designed to deal with preschoolers' social and emotional development, has been shown to have positive influence on children's social behavior, increasing cooperation and self-control. In addition, the prosocial behavior children learned from viewing "Mr. Rogers' Neighborhood" was generalizable to other situations (Friedrich and Stein, 1975).

A review of the literature by Lesser (1974) indicates that children learn both socially desirable and undesirable behavior by watching models on television. Lesser cites modeling studies in which children modeled "altruistic behavior" (Bryan and London, 1970; Bryan and Schwartz, 1971);

and "kindness toward others" (Rosenhan and White, 1967; Rosenhan, 1969). Lesser cites modeling as also affecting "self-criticism" (Thelen, 1969), "self-control" (Bandura and Mischel, 1965; Stein and Bryan, 1972; Stein and Friedrich, 1972), "the moral judgment of children" (Bandura and McDonald, 1963; Cowan et al., 1969) "the tendency to initiate social contact with peers" (O'Connor, 1972), and the "inhibition of deviant behavior" (Walters, Leat, and Mezei, 1963; Walters and Parke, 1964; Walters, Parke, and Crane, 1965; Slaby and Parke, 1971; Wolf, 1972).

Liebert et al., (1973) refer to two studies in which observation and exposure to a different value system changed behaviors such as "a child's willingness to aid others" (Rosenhan and White, 1967) and "his ability to display self-control" (Bandura and Mischel, 1965). Liebert et al., also cite studies in which observational learning has influenced "learning of unfamiliar behaviors" (Coates and Hartup, 1969), "increased sharing" (Bryan and Walbek, 1970), and a decrease in fear (Bandura, Grusec, and Menlove, 1967; Hill, Liebert, and Mott, 1968).

The results of most studies which examine the effects of prosocial television are limited to the same type of behavior portrayed in the show and to the same type of situation. However, some studies have demonstrated generalization of children's verbal responses. For example, children who viewed a televised model making mature or immature moral judgments imitated the observed judgments when presented with new situations (Bandura and McDonald, 1963; Cowan, Langer, Heavenrich, and Nathanson, 1969). In addition, some studies have examined whether the

effects of a modeling experience were still apparent one to four weeks later. In most studies the initial effects produced by observing the modeled behavior were still present on the follow-up examination (Bandura and Mischel, 1965; Staub, 1972; Stumphauzer, 1972; White, 1972). These studies indicate that the effects of viewing televised prosocial behavior may be generalizable in some circumstances and may have long-term effects on the viewer. However, more research is needed to confirm these findings, especially in relation to long term changes in attitudes and behaviors.

In comparison to preschool programming, prosocial programming for older children is not widely produced and the few programs which do exist are relatively recent developments. As such, research on the effects of prosocial programming on older children is limited. The Columbia Broadcasting System (1977) has recently examined the effects of the prosocial themes portrayed in "Fat Albert and the Cosby Kids" on elementary school children. Children,who viewed programs which included topics of divorce, the arrival of a new baby, and cultural uniqueness of Native Americans, discussed the messages correctly in an interview. Although only recall of the messages was tested, this study demonstrates the potential of television for communicating prosocial messages to older children.

Another study conducted with elementary school children demonstrated that children who viewed a "Lassie" episode which portrayed an instance of helping modeled the helping behavior in subsequent behavior (Rubinstein, Liebert, Neale, and Poulos, 1974). A third show designed for older

children, a mental health series entitled "Inside/Out," has gained popularity among elementary school children and often leads to quality classroom discussions after viewing (National Instructional Television Center, 1973). These studies demonstrate the potential of television for influencing older children's attitudes and behavior.

Two studies have demonstrated the potential of television for changing children's attitudes toward minority populations. English Canadian preschool children who viewed segments which portrayed either Non-White children (Oriental and Native Americans) or White children of different ethnicity (French Canadian) showed greater preference to choose minority children as playmates than did a control group who did not view (Gorn, Goldberg, and Kanungo, 1976). In a study evaluating the effects of "Mr. Rogers' Neighborhood" programs, Collins (1974) found that kindergarten children who viewed the programs exhibited positive attitudes toward individual differences. These studies indicate that portrayals of handicapped people on television may promote positive attitudes toward handicapped people.

In sum, studies on the effects of prosocial television programs confirm the potential of television for influencing attitudes and behavior. As more prosocial programming for older children is produced, it becomes important to explore the benefits of such programming for older children. Television studies indicate that television may have the potential for changing children's attitudes and behavior toward minority populations.

In the past few years children's television programming has begun to feature disabled children. Such programs include: "Mr. Rogers'

Neighborhood," "Sesame Street," "ZOOM," and "Big Blue Marble." However, no investigations of children's reactions to television programming which portrays disabled peers have been reported. In their place one finds only general accounts of positive reaction based on unsolicited viewer correspondence (Chesler, 1977; O'Brien, 1977; Sequin, 1977) or on the opinions of adult consultants.[3]

Therefore this research constitutes the first systematic summative evaluation of the prosocial effects upon attitudes of children of a television series specifically designed to influence attitudes concerning handicapped persons. This research is also one of only a few studies on the effects of prosocial television on children other than preschoolers.

Summary of Formative Evaluation for "Feeling Free"

Before describing the methodology of the summative evaluation it is important to briefly describe the formative evaluation process for "Feeling Free" since it was an integral part of the development of the series and provided a basis for the summative evaluation.

As Director of Evaluation for the "Feeling Free" series, the author was primarily responsible for conducting the formative evaluation. The author was assisted by research assistants from the Harvard Graduate School of Education. The research was conducted over a period of ten

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[3] Research is presently being conducted on a new series entitled "KHAN DU!" designed to promote positive attitudes toward handicapped people. However, the results are not yet available.

months, April 1977 through January 1978, with approximately 2,000 children from the Greater Boston area participating in the project.

The research was divided into two main phases. The first phase, designed to provide guidelines for the series prior to any production, utilized an original familiarity index which assessed children's knowledge and misconceptions about disabled people. The second phase was designed to evaluate the extent to which individual preliminary segments of "Feeling Free" succeeded in transmitting their goals to the target audience of third and fourth graders and to suggest changes for editing and future production. This phase incorporated a structured group discussion following viewing of "Feeling Free;" these classroom discussions also helped in the design of the series' corresponding teacher's manual, FEELING FREE: An Invitation to Teachers (Brightman, Storey and Richman, 1978).

The familiarity index was administered to a total of 100 children. These children were asked to write their own definitions for the words "blind," "deaf," "crippled," and "retarded." They were asked to indicate the number of people they know or have known in each of the disability groups and to indicate the context in which these people were known. They were also asked to mark "yes" or "no" or "not sure" to a list of twelve questions which reflect common misconceptions about disabilities.

Although most children knew the definitions for the terms "blind" and "deaf," a variety of responses were obtained for the term "crippled" and there was almost no consistency in the definitions offered for the

term "retarded." Regarding children's experience with handicapped people, 26% of the sample reported knowing no handicapped people, 51% of the sample knew one or two handicapped people, and the remaining 23% knew three or more handicapped people. The context in which disabled people are known is usually reported as "friends." However, in talking with the children it became apparent that being "friends" with a disabled person referred, more often than not, to acquaintances with very minimal personal interaction. They had had very few direct experiences with disabled peers and their acquaintance with disability was distant, at best.

An analysis of the 12 misconception items revealed that 54% of the responses were correct, 21% of the responses were incorrect, and 26% of the responses were "not sure." These results suggest that although children have some knowledge about disabilities, they are incorrect or not sure almost as much of the time. Children especially expressed misconceptions about the items, "Is a person with a handicap sad most of the time?" and "Is a person with a handicap as happy as anyone else?" Seventy-five percent of the children responded that a person with a handicap is sad most of the time and that a person with a handicap is not as happy as anyone else, or they were "not sure" about these items.

The results from the Familiarity Index indicate that children's understanding of disability terms as well as their familiarity with handicapped people are important components to examine in a summative evaluation of "Feeling Free." Children's understanding of the disability terms, as well as their previous experience with handicapped

people, may affect the impact of the series. In addition, children's misconceptions about handicapped people indicate that these misconceptions should be carefully examined in the summative evaluation, and the effect of the "Feeling Free" series on these misconceptions should be carefully measured.

In contrast to children's misconceptions of handicapped people, content analyses of children's discussions following viewing of "Feeling Free" segments indicated that children attributed positive characteristics to the handicapped children on "Feeling Free." The salient themes of the discussion included: Children are interested in learning how disabled people cope with their problems and the adjustments they need to make in everyday situations. They are interested in the ways disabled children and nondisabled children can help each other and accommodate to another person's needs. Although realizing that disabled children are often teased and stared at, they learn that disabled children can have friends, too. And children realize that disabled children are competent and have interests and personalities like other children. These positive responses to the program indicate that "Feeling Free" may be a vehicle for increasing children's positive attitudes toward handicapped people.

Conclusions from Background Literature

The literature on attitude theory, focusing on attitude formation and attitude change, was reviewed. The theories provided a framework for understanding how the television series "Feeling Free" functions as a medium of communication for persuasive messages. Research indicated

the potential of the persuasive messages for affecting the attitudes and behavior of the receiver of these messages, the viewer. Research also emphasized the importance of examining children's comprehension of the messages portrayed in "Feeling Free" and their degree of acceptance of the message.

A review of the literature on attitudes toward handicapped people indicated that, although a variety of techniques has been used to measure attitudes, studies directed toward children usually rely on sociometric measures and picture projectives. These measures do not alone supply us with a comprehensive understanding of children's attitudes toward handicapped people. In addition, most attitude instruments measure attitudes toward specific disabilities, only a few measure attitudes toward handicapped people in general, and there is little research concerning the attitudes of handicapped people toward disabilities.

Therefore, we need research which utilizes techniques that will provide us with more information on children's attitudes toward handicapped people. Measures need to be developed which measure attitudes toward handicapped people in general, as well as toward specific disabilities. Measures need to be directed toward both handicapped and nonhandicapped children. Unstructured questionnaires, interviews, and attitude scales, which have been used primarily with adults may, if adapted for use with children, allow for expressions of their feelings, perceptions, and reactions to handicapped people.

The majority of studies examining children's attitudes toward handicapped people report that children express more negative attitudes

toward handicapped people than toward nonhandicapped people. Handicapped children are generally less well liked, less valued and less accepted by their nonhandicapped peers. However, a few studies suggest that there may be a recent trend toward more positive attitudes toward handicapped people.

Some studies have examined the relationship between attitudes and age, sex, and experience with handicapped people. Studies concerning age and attitude are inconclusive, although there is a trend for older children to have more negative attitudes than younger children. Studies concerning sex and attitudes indicate that females have more positive attitudes toward handicapped people than do males. These results indicate that children at different ages may respond differently to the "Feeling Free" series and that girls may respond more positively than boys.

Studies concerning experience and attitudes portray different and conflicting pictures. Many studies report that integration experiences, and particularly those which are enjoyed, lead to positive attitude change. However, other studies have found that children have negative attitudes toward their handicapped peers even in integrated settings. It remains unclear whether integrated experience alone, or integrated experiences supplemented by special programs, can help to develop children's positive attitudes toward handicapped people. The summative evaluation of "Feeling Free" provides the opportunity to assess the impact of a program designed to promote positive attitudes in a context where children have opportunities for interaction with handicapped peers.

A review of the television research indicates that the television medium may have the potential for positively influencing children's developing attitudes and behavior. This hypothesis is supported by research on the programs "Sesame Street" and "Mr. Rogers' Neighborhood" which indicates that preschool children viewing these programs model the prosocial behavior presented in the programs. Some studies have indicated that the prosocial behavior learned from the programs is generalizable to other situations, whereas other studies fail to confirm these findings. The limited research on programs designed for older children indicates that prosocial television programming may also positively affect the attitudes and behavior of older children. The effects of prosocial programming for older children need further investigation, especially in the light of recent programming directed toward an older audience and featuring disabled people.

A summary of the formative evaluation conducted for the "Feeling Free" series discussed the relevance of the formative findings for the development of appropriate summative evaluation instruments. The results from the content analyses of children's discussions following viewing of preliminary "Feeling Free" segments indicated that "Feeling Free" may be a vehicle for increasing children's positive attitudes toward handicapped people.

The summative evaluation of "Feeling Free" provides the opportunity to systematically investigate older elementary school children's reactions to a television series designed to increase children's awareness,

understanding, and acceptance of handicapped people. The main hypothesis is that children who view the "Feeling Free" series and who participate in subsequent classroom discussions of what they viewed will be more aware, more understanding, and more accepting of handicapped people than will those who do not. The effects of previous experiences with handicapped people and of different types of classroom discussions on the impact of the series will also be explored.

CHAPTER THREE

METHODOLOGY

Overview of Research Methods

The general design of the research involved presenting the "Feeling Free" television series to handicapped and nonhandicapped children in eight elementary mainstreamed classrooms. Questionnaires were administered before and after viewing to seven of the eight experimental classrooms and to an additional four comparison classrooms who did not view "Feeling Free." One experimental class received only the post questionnaire in order to assess existence of effects of pretesting. The questionnaire was designed to determine children's familiarity with handicapped people, as well as children's attitudes toward handicapped people, and to assess changes in these areas following viewing of "Feeling Free."

Teachers led classroom discussions following viewing of the program. We observed these discussions in order to determine how the nature of the discussions might affect the impact of "Feeling Free."

The field research was divided into two main parts: Phase I during the spring of 1978, involving five experimental classrooms (including the Posttest Only Group) and two comparison classrooms, and Phase II during the fall of 1978, involving three experimental classrooms and two comparison classrooms. This division made it feasible to carry out the field research with a limited number of researchers and provided an opportunity to revise and refine the Phase II methodology, if necessary.

Basically, the same methodology was applied to both phases. The

main difference was that the questionnaire, which was given in two 45 minute sessions during Phase I, was shortened during Phase II so as to eliminate ambiguous items and to allow for administration in one 45 to 60 minute session. It was felt that, although the children were able to participate in four questionnaire sessions (two pre and two post test sessions), it was not the most enjoyable part of the experiment and a shorter questionnaire to be administered in a single session would be more desirable. Also there were slight adjustments in a few of the questionnaire items, which are noted in the instrument section.

Subjects

After an extensive search throughout the Greater Boston area a limited number of mainstreamed classrooms was located. All mainstreamed classrooms which were located were used. Thus the sample contains no deliberate matching of experimental and comparison classes, although the classes are roughly similar in their characteristics.

A total of 266 children from 12 mainstreamed classrooms participated in the study. The experimental group consisted of 163 subjects from eight classrooms, and the comparison group consisted of 103 subjects from four classrooms. The Phase I sample contains 152 subjects (expt n=101, comp n=51). The Phase II sample contains 114 subjects (expt n=62, comp n=52). These data are presented in Table 3-1.

Table 3-1

N of Subjects

	Experimental Group	Comparison Group	Total
Phase I	101	51	152
Phase II	62	52	114
Total	163	103	266

The total sample contained one 3rd/4th grade, six 4th grades, three 4/5th grades, and two 5th/6th grades. The sample contained approximately an equal number of boys and girls. During Phase I the sample included 79 girls and 73 boys. During Phase II the sample included 64 girls and 50 boys. The children in Phase I were slightly younger than those in Phase II. The mean age in Phase I was 9.3 and the mean age in Phase II was 9.8, with a total mean age of 9.5. So overall the samples for Phase I and Phase II were approximately the same.

Classrooms were selected from four schools within the Greater Boston Area. The school locations were in four different communities. The schools all contained a mixture of middle and upper middle class children, with the exception of one school which was predominantly middle class. All schools had a predominantly white population partly

integrated with Black and Hispanic children. All but one of the classrooms contained at least one handicapped child who had been mainstreamed for at least three years. Both mentally and physically handicapped children were included in the sample.

Table 3-2 presents a summary of the characteristics of the experimental and comparison groups. Figure 3-1 describes the mainstreamed conditions of each classroom.

Table 3-2

Sample Characteristics

	No. of Subjects	Grade	Avg. Age	Avg. Yrs. Mainstreamed	Avg. No. Handicapped Students Per Class
Expt	163	One 3rd/4th Two 4th Three 4th/5th Two 5th/6th	9.6	3.5	2
Comp	103	Four 4th	9.4	3.3	2

Group Treatment

Experimental Group

Eight classrooms viewed the six 15 minute "Feeling Free" programs. Five of these classrooms viewed the programs two times per week for three weeks via a videotape recorder. The other three classrooms viewed the programs once a week for six weeks via Massachusetts Educational

Figure 3-1

Schools/Grades/Classrooms/Handicaps

School A

Four fourth grade classrooms (one is a third/fourth combination). Each classroom had been mainstreamed for 4-5 years.

Experimental Classroom 1--Contained a girl who has spina bifida and gets around on crutches quite well.

Experimental Classroom 2--Contained a boy who is labeled "autistic" and a girl with severe facial burns.

Comparison Classroom 1--Contained a child who has learning disabilities, who is taken out of the classroom for remedial work.

Comparison Classroom 2--Contained a child who has learning disabilities, who is taken out of the classroom for remedial work.

School B

Three fourth/fifth combination classes were selected from this school. Each classroom contained one disabled child who had been mainstreamed 4-5 years.

Experimental Classroom 3--Contained a boy who is a dwarf.

Experimental Classroom 4--Contained a boy who was blinded in one eye 3 years ago.

Experimental Classroom Posttest/Only--Contained a boy who lip-reads due to frequent loss of hearing due to meningitis.

Figure 3-1

Schools/Grades/Classrooms/Handicaps

(continued)

School C

Three classes which are part of a mainstreamed school. The three classes had close contact with each other, as well as with a substantially separate classroom containing five Down's Syndrome children. In addition, a second grade boy in the school has a missing forearm. The handicapped children had all been mainstreamed for three years, with the exception of the Down's Syndrome children who were in this school for the first time this year.

Experimental Classroom 5--Contained a boy who is "borderline" mentally retarded, and a boy who is visually impaired (fourth grade).

Experimental Classroom 6--Contained a boy with cerebral palsy. The boy, although he does not use crutches, walks awkwardly and his speech is impaired (fifth/sixth grade).

Experimental Classroom 7--Contained no disabled child, but had opportunities to observe and interact with the handicapped children in their school (fifth/sixth grade).

School D

Two fourth grade classrooms participated from this school. The children had been mainstreamed for two years.

Comparison Classroom 3--Contained two boys who are deaf.

Comparison Classroom 4--Contained two girls and a boy who are deaf.

Television (MET).[1] The teachers were asked to use the teacher's guide, Feeling Free: An Invitation to Teachers, and other supplementary material in conjunction with the programs.

The post questionnaires were administered to all of the eight classes one week after they completed viewing the programs. The pre questionnaires were administered to seven of the eight classes. The remaining class received the post questionnaire only.

In-depth observations of the teacher-led "Feeling Free" discussions were conducted on five of the eight classes throughout the experimental period. Only occasional observations of teacher-led "Feeling Free" discussions were conducted on the other three classes.

Comparison Group

Four classrooms did not view any programs, but received the pre/post questionnaires at the start of the experimental period and again at the end of the experimental period (approximately six weeks).

Assignment of Classrooms to Experimental and Comparison Conditions

Assignment of classrooms to groups was random when possible but was partially constrained by scheduling problems. In Phase I, School A, out of the four classes two pairs had similar schedules. One pair was

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[1] Assigning three of the classrooms to view via Massachusetts Educational Television allowed us to spend relatively little time at one school, thus enabling us to cover a larger number of classrooms than would have been possible otherwise.

randomly assigned to the experimental group and the other pair to the comparison group. In the second Phase I school, School B (MET viewing), all three classrooms were assigned to the experimental group. One of these classrooms was randomly assigned to the Posttest Only Group (PTO).

In Phase II, School C, which contained three appropriate classrooms for this study, was located first and assigned to the experimental group so as to expedite the scheduling arrangements for viewing. Two classrooms in School D were assigned to the comparison group. It was felt that physical separation of experimental and comparison classes would eliminate any possibility that the experimental group who viewed "Feeling Free" would transmit the viewing experience to the comparison group, which was not controlled for in Phase I.

A summary of the research design is presented in Table 3-3.

Instruments

As previously stated, the main hypothesis is that children who view the "Feeling Free" series and who participate in subsequent classroom discussions of what they viewed will be more aware, more understanding, and more accepting of handicapped people than will those who do not. In addition, two subsidiary hypotheses were proposed: (a) Different experiences children have had with handicapped people will affect the impact of the series; and (b) Different types of discussions following viewing of "Feeling Free" will affect the impact of the series.

Two types of instruments were developed and utilized in this study in order to test these hypotheses. The first instrument, Children's

Table 3-3

Summary of Research Design by School

PHASE I		PHASE II	
School A	School B	School C	School D
EXPERIMENTAL GROUP			
Classroom 1 Classroom 2	Classroom 3 Classroom 4 Classroom PTO*	Classroom 5 Classroom 6 Classroom 7	
• Pre/post Questionnaires • Presentation of "Feeling Free" (2X/week for 3 wks.) • "Feeling Free" discussion, observations (6 programs)	• Pre/post Questionnaires, except Classroom PTO • "Feeling Free" viewing via MET (1X/week for 6 wks.) • "Feeling Free" discussion, observations (occasional)	• Pre/post Questionnaires • Presentation of "Feeling Free" (2X/week for 3 wks.) • "Feeling Free" discussion, observations (6 programs)	
COMPARISON GROUP			
Classroom 1 Classroom 2			Classroom 3 Classroom 4
• Pre/post Questionnaires			• Pre/post Questionnaires

*Posttest Only

Attitudes Toward Handicapped People Questionnaire, was designed to assess children's familiarity with and attitudes toward handicapped people. The second instrument, the Group Discussion Rating Scale, was designed to assess the teacher-led discussions and activities following viewing of the programs.

This instrument section is intended to give an overview of the instruments used. Specific coding strategies and measures are described in the next section, a copy of the questionnaire can be found in Appendix B, and a copy of the Group Discussion Rating Scale in Appendix C.

Children's Attitudes Toward Handicapped People Questionnaire

The five measures included in the questionnaire, described in the order in which they were administered, are presented below.

(1) Write a Story: Person Perception Measure. Children were asked to write a story about a child who is handicapped. They chose between writing a true story or a make-believe story. There was a 15 minute time limit.

The purpose of this instrument was to allow the child, in as free form a way as is possible, to relate his/her perceptions of someone who is handicapped. It was placed first in the questionnaire so that the stories would not be "contaminated" by the more specific attitude items. The children's stories were examined for changes along dimensions of attitude, content, and theme.

(2) Definitions of Disability Labels. Children were asked to write their own definitions for the words "handicapped (disabled), blind, deaf, dwarf, retarded, crippled (uses crutches or a wheelchair), cerebral palsy, and dyslexia." During Phase I children were asked to write the definitions for "handicapped" and "disabled" separately, to determine if children assigned different connotations to these words. Due to confusion among the children and the evaluators' own inability to distinguish between the two terms, these items were combined during Phase II.

Also, during Phase I, children were asked to write the definitions for "uses crutches" and "uses a wheelchair." This proved to be confusing for many of the children, thus the item was collapsed into "crippled (uses crutches or a wheelchair)" during Phase II. The word "crippled" had originally been avoided as a word not approved of by handicapped people. However, it is a term commonly used by children, and thus it seemed proper to include it in the questionnaire.

The purpose of this instrument was to assess children's definitions of the disability terms used in the programs and in the questionnaire items. The children's definitions were examined for changes in informational and attitudinal content.

(3) Familiarity Index. In Phase I, children were asked whether they knew someone who was blind, deaf, a dwarf, or retarded, who uses crutches or a wheelchair, who has lots of problems reading and spelling, or who has another kind of disability other than the

ones mentioned. If they reported knowing a handicapped person they were asked to indicate whether they knew the person "very well," in which case they were to provide a name, or "a little," in which case they were to indicate whether they had "just seen" the person or knew the person from "books" or an "other" context.

Children had difficulty responding to this measure. Most children had had the same amount and kind of brief encounters with a handicapped person whom they had "just seen" on the street or knew from television or books. Thus this part of the Familiarity Index was omitted from the Phase II questionnaire.

In Phase II, children were asked whether anyone in their "family" is handicapped, or if they "know or play with" any handicapped people. A list of six disability groups is presented to facilitate answers. The children were then asked to indicate whether they like the handicapped person "not at all," "a little," or "a lot."

The purpose of the Familiarity Index was to assess children's previous experiences with handicapped people. The responses were analyzed to determine the amount and kind of experience children have had with handicapped people.

(4) General Attitudes Toward Handicapped People (Scale I). Children were asked to agree or disagree to a series of general statements about handicapped people and to indicate the extent of their judgment on a scale of "a little," "pretty much," and "very much." The purpose of this instrument was to assess children's general attitudes toward handi-

capped people. Based on the findings from the "Feeling Free" formative evaluation (Storey, 1977) and a review of the Yuker, Block, and Younng (1966) attitude scales, items were selected to reflect five attitude dimensions:

- Capabilities, skills, and potentials of disabled people;
- Feelings of disabled people;
- Disabled people as friends;
- Treatment and approachability of disabled people; and
- General perceptions of disabled people.

Four items were constructed for each of these five categories and used during Phase I, but they were subsequently reduced to three items per category during Phase II, (as explained in the section on "Deletion Strategy for Phase I items" p.65). The measure contained approximately an equal number of positive and negative valenced items and the items were randomly ordered. Items such as "A handicapped person can have a job," and "A handicapped person is sad most of the time," were included in the instrument. Children's responses were examined to determine changes in attitudes toward handicapped people in general along the five attitudinal dimensions noted above.

(5) Program Specific Attitudes (Scale II). Children were asked to agree or disagree to a list of statements which described, in generic terms, the handicapped individuals on "Feeling Free." They were asked to indicate the extent of their judgment on a scale of "a little," pretty much," and "very much." Three program specific items were

constructed for each of the five cast members and for the two adult guests and used during Phase I, but they were subsequently reduced to two items per handicapped person during Phase II. The items reflected six disabilities (deaf, blind, dwarf, dyslexia, someone who uses crutches, someone who uses a wheelchair--both a blind child and a blind adult are part of the programs, which is why there were six disabilities and seven cast members).

The purpose of this instrument was to assess children's attitudes toward the specific content presented in the programs. Items were constructed to reflect program content, both audio and visual. The items were designed to include an equal number of positive and negative valenced items and they were randomly ordered. Items such as "A blind person can get married," and "A deaf boy doesn't have any friends," were included in the instrument. The children's responses were examined to determine changes in attitudes toward the specific abilities and lifestyles of the handicapped people presented in the programs.

Group Discussion Rating Scale

The rating scale was designed to assess the quality of the tape-recorded teacher-led discussions following viewing of "Feeling Free." We assigned group ratings along the dimensions of "Appropriateness," "Mood," and "Overall Rating" as well as performed a content analysis of the Orientation of the discussion and an analysis of the Themes. The rating scale and content analyses are explained in more detail in the section on coding, page 63.

Procedures

Children's Attitudes Toward Handicapped People Questionnaire (pre/post)

Questionnaires were administered to each classroom by one of three female researchers. Only one evaluator was present in each classroom. The instructions for the first measures in the questionnaire, Write A Story measure, definitions of disability labels, and the Familiarity Index, were read aloud to the children. For the General Attitude Toward Handicapped People measure and the Program Specific Attitude measure, directions were given as follows:

> You are to decide whether you agree or disagree to the statements. Once you decide that you agree or disagree, decide whether you agree or disagree a little, pretty much, or very much. Then, you must mark whether you are sure or not sure of your answer. Thus, every question gets two answers.
>
> For example, let's read the first question together. "A handicapped person can have a job." Decide whether you agree or disagree. If you agree, do you agree a little, pretty much, or very much? OK, now, are you sure, or not sure of your answer? If you disagree, do you disagree a little, pretty much, or very much?

The majority of the children caught on quickly to the requirements of the task. For some of the lower grades, each item in these measures was read aloud. For the other classes, the children were allowed to proceed at their own pace, and individual children were given assistance as appropriate if any had trouble following the instructions or writing a response. During Phase I the two pre and two post questionnaire sessions each lasted approximately 45 minutes. During Phase II the one pre and one post questionnaire session each lasted approximately 60 minutes.

"Feeling Free" Viewing and Discussion

The children in five experimental classes in School A and School C viewed videotapes of two 15 minute "Feeling Free" programs a week for three weeks, while children in the three experimental classrooms in School B viewed one 15 minute "Feeling Free" program a week for six weeks via Massachusetts Educational Television (MET).[2] All classrooms viewed a total of six programs. Two of the schools had their own equipment, and we provided the videotape equipment for the third school. The equipment was operated by one of the researchers, with the exception of School B in which the classes viewed the programs via MET. In this school, the television viewing was conducted totally under the teachers' directions and supervision.

After each program a discussion, approximately 30 minutes in length, was conducted by the classroom teacher. In the case of two classrooms in School A, the classroom teacher conducted discussions with half the class while a resource teacher conducted discussions with the other half. This division was desired by the teachers in order to have small discussion groups. The teachers were asked to use the teacher's guide, FEELING FREE: An Invitation to Teachers, and other supplementary materials in conjunction with the programs. The entire viewing and discussion session for each program lasted approximately 45 minutes and was taperecorded. A researcher was present for each of the discussions in School A and

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[2] There was a one-week vacation between MET Program #1 and MET Program #2.

School C and for approximately half of the discussions in School B (MET viewing). Discussion notes were taken of children's comments and reactions to supplement the taperecording.

Scheduling

The two experimental classes in Phase I, School A (who viewed the "Feeling Free" programs over a period of three weeks) were administered Part I and Part II of the pre questionnaire during a two week period prior to viewing the programs, and the post questionnaire the second week after the completed viewing of the programs. (There was a one-week vacation between the last pretest week and the first week of program viewing.) The two comparison classes in School A were administered the pre and post questionnaires on the same days as the experimental classes. Thus the entire experimental period for School A classes, including the one-week vacation, lasted eight weeks.

The three experimental classes in Phase I, School B (who viewed the "Feeling Free" programs via MET over a period of 6 weeks) were administered Part I and Part II of the pre questionnaire during a one week period prior to viewing the programs, and the post questionnaires one week after the completed viewing of the programs. Thus the entire experimental period for School B classes including a one-week vacation, lasted nine weeks.

The three experimental classes in Phase II, School C (who viewed the "Feeling Free" programs over a three week period) received the pre questionnaires one week prior to viewing the first program and the post questionnaires the second week following the last viewing week. The

entire experimental period for School C classes lasted 6 weeks.

The two comparison classes in Phase II, School D, received the pre and post questionnaires during the same weeks as the three experimental classes in Phase II. The entire experimental period for School D lasted six weeks.

The activity schedule is presented in Figure 3-2.

Coding

Coding categories and scales were developed for each of the measures as described below.

Children's Attitudes Toward Handicapped People Questionnaire

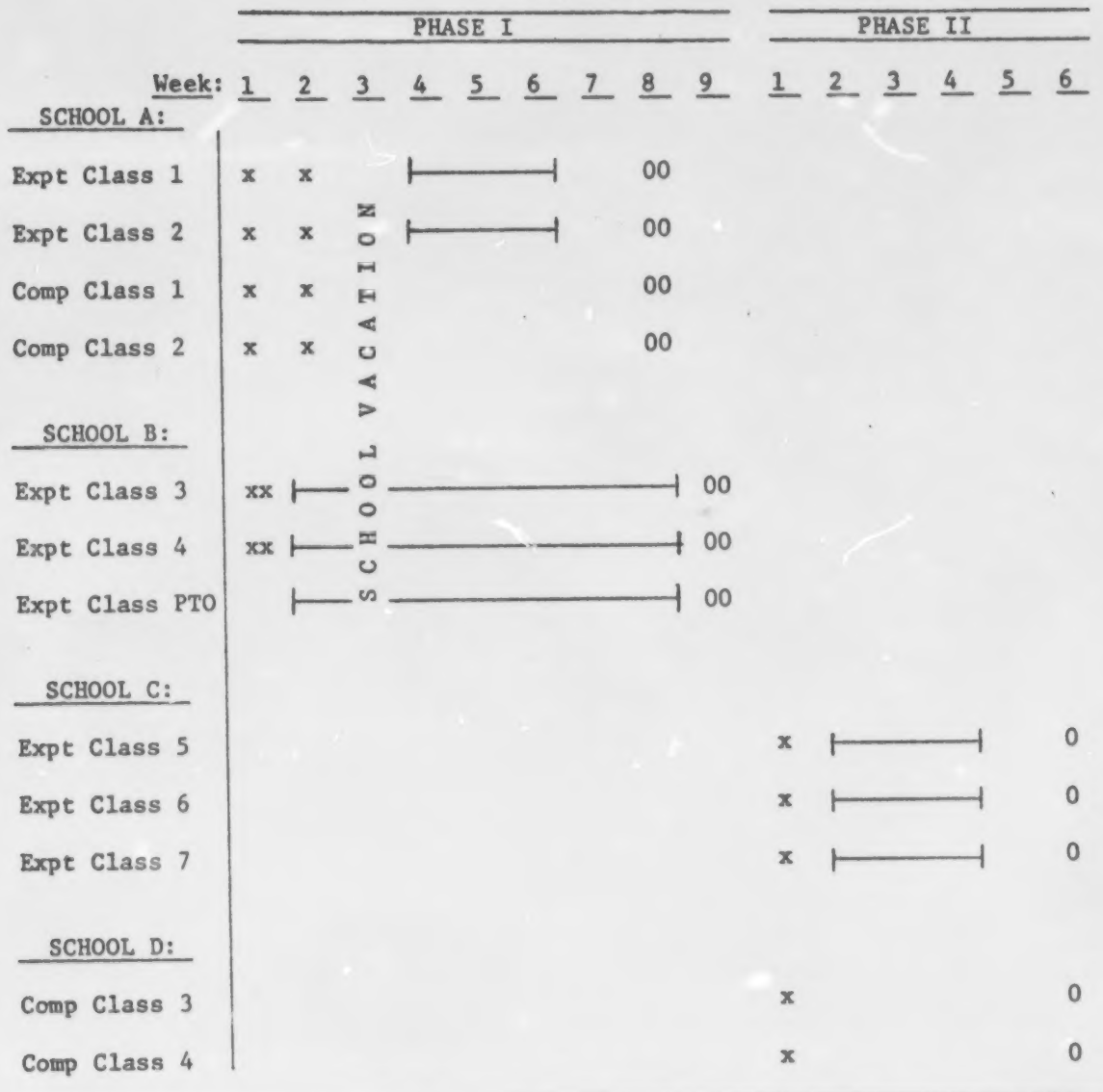
(1) Write a Story: People Perception Measure; and (2) Definitions of Disability Labels. Approximately 100 questionnaires, pre and post, were examined to determine an appropriate coding strategy. It became apparent that the wealth of information contained in the story measure would best be reflected in categorical data.

The stories were coded as follows: (1) Attitude: negative, neutral positive; (2) Type: make-believe, true; (3) Kid: disabled schoolmate, other; (4) Content: miracle healer, accident, cause, fairy tale, having fun, success, description; (5) Themes: friendship, ability, helping/teaching, teasing, adjusting, experiencing disability, asking questions, growing up; (7) Disability: handicapped, blind, deaf, crippled, dwarf, retarded, misc.,; and (8) Length of story.

Some of the definitions also contained a variety of responses and

Figure 3-2

Field Activity Schedule



did not allow for a straightforward "right" or "wrong" coding scheme. Thus the definitions for the terms "handicapped/disabled," "crippled," and "retarded" were coded into categorical data. The categories included definitions such as "something wrong," "can't do some things," "needs help," "dumb, stupid, crazy," "slow thinking," and "can't walk." The disability terms "blind, deaf, dwarf, cerebral palsy, and dyslexia" were coded as "correct" or "incorrect."

Since personal biases could have affected the scoring of these measures, the coding was conducted independently by two researchers, (a research assistant and me). Initial interscorer reliability was achieved on a random sample of 30 questionnaires: (1) Write a Story measure, 83% agreement; (2) Definitions, 98% agreement. Two researchers continued to independently code all the questionnaires. When discrepancies arose, it was usually due to an obvious error in scoring, or to the need for assigning more than one code to the response. However, there was a small percentage of "borderline" cases which were not immediately codable into a defined category. All discrepancies were discussed, and consensus achieved. One of the two researchers did not know which classes the subjects were drawn from.

(3) Familiarity Index. In Phase I, the answers were coded into two categories: (1) The number of handicapped people they have just seen; and (2) The number of handicapped people they know well.

In Phase II, the answers were coded into two categories: (1) The number of handicapped people in the subject's family; and (2) The number of handicapped people the subject knows or plays with. In addition,

for each category in Phase II, the children's responses to the items, "Do you like this person?" were coded according to the choices presented: (1) Not at all; (2) A little; and (3) A lot. In cases where the subject knew more than one handicapped person, an average likability score was computed.

(4) General Attitudes Toward Handicapped People Measure (Scale I), a

(5) Program Specific Attitudes Measure (Scale II). The items in these two measures were coded on a scale of 1 to 6, with 1 representing least positive and 6 representing most positive. Thus, for those items in which "agree" was a positive response, the coding system was as follows:

I DISAGREE			I AGREE		
☐ A LITTLE	☐ PRETTY MUCH	☐ VERY MUCH	☐ A LITTLE	☐ PRETTY MUCH	☐ VERY MUCH
Code: 3	2	1	4	5	6

For those items in which "disagree" was a positive response, the coding system was as follows:

I DISAGREE			I AGREE		
☐ A LITTLE	☐ PRETTY MUCH	☐ VERY MUCH	☐ A LITTLE	☐ PRETTY MUCH	☐ VERY MUCH
Code: 4	5	6	3	2	1

If a subject neglected to answer a question, or could not answer because he/she did not know the meaning of the word "dwarf," the item was scored as "0." If a subject chose two answers, (e.g., agree a little and disagree a little), the answer was scored as "7." These responses were not included in the analyses.

Group Discussion Rating Scale

After a preliminary coding sheet was devised on the basis of our knowledge of the discussions, two judges (a research assistant and I), listened to and coded one taped 45 minute discussion. The discussion was listened to and coded and the rating scale revised approximately six times in order to arrive at a rating scale that (1) accurately reflected the discussions; (2) allowed minimal stopping of the tape; and (3) achieved high reliability among raters. During this process, categories became more clearly defined and initial reliability was achieved. A second tape was then rated, resulting in a few additional refinements in the categories. The categories which were developed include (1) "Group Rating" along dimensions of "appropriateness" of discussion for goals of "Feeling Free," discussion "mood," and an "overall" subjective rating. (2) "Orientation" of the discussion such as remarks about the programs or statements about disability in general; and (3) "Themes" included in the discussion such as friendship and helping. The group discussion coding scheme is described in more detail in Figure 3-3.

Figure 3-3

Discussion Group Rating Scale

SCALE	
1-5 (least-most appropriate)	APPROPRIATENESS of the orientation of the discussion according to the goals of "Feeling Free."
1-5 (dull-enthusiastic)	MOOD of the discussion such as enthusiastic or dull.
1-5 (poor-excellent)	OVERALL rating of the discussion, including interactions of teachers and children, and the orientation, mood, and content of the discussion.

	The ORIENTATION of the discussion--the types of comments made by the children and teacher were coded into the following categories:
1-3 (rank amount of occurence)**	(1) A remark regarding a "Feeling Free" character or event;
	(2) A personal comment about oneself;
	(3) A description of an anecdotal experience about people other than oneself;
	(4) A general statement about disabled people or about a disability;
	(5) A comment reflecting a common theme such as teasing;
	(6) Off-task irrelevant comments or behavior.

	The THEMES which emerged during the discussion were coded into the following subject areas:*	
1-3 (rank amount of occurence)**	(1) Friendship	(5) Adjusting
	(2) Ability	(6) Experiencing Disability
	(3) Helping	(7) Questions
	(4) Teasing	(8) Growing Up

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*These are discussion themes suggested in the teacher's guide.

**Includes only the three most frequently discussed topics, with 1 representing the topic most frequently discussed.

The discussion was rated after every ten minutes. The group rating categories (Appropriateness, Mood, and Overall) were rated on a scale of 1 (low) to 5 (high). For example, a discussion which the raters determined to be very appropriate according to the goals of the series received a rank of 5. The categorical codes for Orientation and Themes were rated on a scale of 1 to 3 depending on the frequency of the topic in the discussion. For example, a rank of 1 indicated that most of the discussion was focused on that topic. At the end of the discussion, an overall average rating was computed for the 3 group rating categories on a scale of 1 (low) to 5 (high), and for the categorical codes for those codes which ranked overall 1, 2, or 3 (indicating the topics covered most frequently in the discussion).

Two coders independently coded 23 of the 26 discussions. The two coders together coded the remaining three discussions. High reliability was achieved throughout: Group Rating scales (1-5): 86% agreement; Categorical rankings (1 to 3): 87% agreement. The overall ratings of one judge, randomly chosen, were used for the data analyses. The coding sheets are presented in Appendix C.

Scale Construction and Reliability Analyses

Deletion Strategy for Phase I Items

The Children's Attitudes Toward Handicapped People questionnaire was originally designed with 41 attitude items, 20 items of General Attitude and 21 items of Program Specific Attitude. We administered this questionnaire to Phase I subjects. However, prior to Phase II, we

deleted some items which did not "work well." To aid us in the deletion process, Phase I subjects were told they could write comments next to any of the items. When a child asked a question regarding a particular item, he or she was encouraged to put the question in writing or write a comment about the item.

In our deletion process, in order to maintain a balanced questionnaire, we sought to omit one item from each of the five attitude dimensions in the General Attitude Scale and one item regarding each of the disabled people represented in the Program Specific Attitude Scale. The children's comments determined which item in each dimension or disability category should be deleted. Five items were deleted from the General Attitude Scale and seven items were deleted from the Program Specific Attitude Scale. These were items which were misleading for the children.

Two researchers independently deleted the items. Agreement was achieved on 10 out of the 12 deleted items, consensus was achieved on the remaining 2 items. The resulting two scales, consisting of 29 items overall, were administered to Phase II subjects:

Scale I: General Attitude -- 15 items

Scale II: Program Specific Attitude -- 14 items

Item Analysis Against Total Scale Scores

Initial scale consistency analyses were conducted with the total sample on the two pretest scales to see which items were related most and least strongly to the total scale score (Scale I of 15 items and Scale II of 14 items). These analyses of each item with the total scale

score indicated three items in Scale I showed very low correlations with the total score for scale I (r's <.20); all other items showed correlations ranging from .34 to .61. The three items with low correlations from Scale I were deleted from subsequent scale score analyses, reducing this scale to 12 items. All items in Scale II correlated between .30 and .61 with the total scale score for Scale II. Thus no items were deleted from Scale II. The final two attitude scales are: I: General Attitude Toward Handicapped People--12 items and Scale II: Program Specific Attitude--14 items, with a resulting combined scale, Overall Attitude, of 26 items.

Comback's Alpha was used as a final check for internal consistency. The total standardized Item Alpha for Prescale I (12 items) was .80, for Prescale II (14 items) it was .81, and the resulting overall Alpha, combining Scales I and II, was .88. In addition, there was high correlation between prescale I and prescale II (r = .62, p <.001).

The final 26 items are presented in Table 3-4. All analyses which follow were computed with these scales for both pre and posttest results.

Test-Retest Reliability Using Pearson Correlation Coefficients With Comparison Group

In order to determine the stability of the overall attitude scores--the test-retest reliability on the attitude scales--Pearson correlation coefficients were computed for the comparison group. Each of the attitude scales was examined for changes that may have occurred from pre to post tests during the approximately six week period. The results indi-

Table 3-4

Children's Attitudes Toward Handicapped People Questionnaire:

Attitude Rating Scale Items

Scale I: General Attitude Toward Handicapped People (12 Items)

1. A handicapped person can have a job.
2. Handicapped children should be in separate classrooms by themselves.
3. A handicapped person can get married and have a family.
4. A handicapped person is sad most of the time.
5. Handicapped children are not as much fun to play with as other children.
6. A handicapped person can have as much fun as anyone else.
7. Most handicapped people feel sorry for themselves.
8. What handicapped people do every day is very different from what other people do.
9. Handicapped people are usually unfriendly.
10. A handicapped person could be my friend.
11. Handicapped people often act very different than other people.
12. A handicapped child has as many friends as anyone else.

Scale II: Program Specific Attitude (14 Items)

1. A blind person can get married.
2. A person in a wheelchair can help other people.
3. A deaf boy doesn't have many friends.
4. A boy who has problems reading and spelling can be a good rock-climber.
5. A girl who is blind can't play hide and seek.
6. A deaf person can't communicate with other people.
7. A boy who has problems reading and writing can't skateboard very well.
8. A person who uses crutches can ride the subway on his own.
9. A person who uses a wheelchair can drive a car.
10. A person who uses crutches usually needs help.
11. A blind person can go to college.
12. A blind person can be a school teacher.
13. A dwarf can have fun at a school dance.
14. A dwarf can teach pottery.

cated that the pretest scores of the comparison group are high positively correlated with their posttest scores. Thus the test-retest reliability of the attitude rating scales was determined to be acceptable. The results are presented in Table 3-5.

Table 3-5

Test-Retest Reliability Control Group (n = 74)[a]

Scales	Scale Type	Correlation Coefficient	Significance
Scale I (N = 12)	General Attitude	r = .72	p <.001
Scale II (N = 14)	Program Specific Attitude	r = .81	p <.001
Scales I & II (N = 26)	Overall Attitude	r = .80	p <.001

[a] Analyses were conducted only on those subjects who received both pre and posttests.

Attitude Mean Scale Score Comparison Between the Posttest Only Group and the Other Experimental Classes

One-way analyses of variance comparing the posttest mean scale score of the Posttest Only Group with the posttest mean scale score of the other experimental classes indicate that there were no significant differences between the two groups on Scale I: General Attitude Toward Handicapped People. However, on Scale II: Program Specific Attitude, and on Scales I

and II combined: Overall Attitude, the posttest mean scale score of the Posttest Only Group was significantly lower than the posttest mean scale score of the other experimental classes (Scale II: F (1,139) = 15.86, p <.001; Scales I & II F (1,139) = 5.71, p <.05). The results are presented in Table 3-6.

Table 3-6

Posttest Only Group Attitude Mean Scale Score Comparisons With Other Experimental Classes

Scale	Posttest Only Group (n = 13)	Other Expt. Classes (n = 129)	Difference
Scale I	4.97	4.93	.04
Scale II	4.13	5.05	.92***
Scales I & II	4.51	5.00	.49*

*p <.05
***p <.001

The lower Scale II scores of the Posttest Only Group indicate that the posttest scores of the other experimental classes on Scale II (Program Specific Attitude) may have been affected by taking the pretest, with the experience of taking the pretest possibly elevating the post-test scores.

Reliability Test for Familiarity Index (Phase II)

Pearson correlation coefficient tests indicate that there was high stability from pre to post tests for the measure assessing the number of handicapped people in the subject's family and the number of handicapped people known or played with. The stability for the number of handicapped people in the family was $r = .86$, $p < .001$. The stability for the number of handicapped people known or played with was $r = .63$, $p < .001$.

(The Phase I Familiarity Index was coded into a variety of categories and thus reliability analyses were not appropriate for these items.)

Missing Data

Subjects who were missing either the pretest (except for the Posttest Only Group) or the posttest on the attitude items were deleted from all analyses. Subjects who missed the pre or posttest were either ill or taken out of class for special school activities. Subject loss is not related to the treatment. In addition, those subjects who did not respond to more than five items on either Part I or Part II of the attitude scales were deleted from subsequent analyses. Missing responses were not due to treatment. Total scale scores for the remaining subjects were computed by adding the attitude scores (1, 2, 3, 4, 5, or 6) for each item and dividing by the total scorable answers.

On these grounds, 21 subjects were deleted from the experimental group and 29 subjects were deleted from the comparison group. The total N with subjects deleted is 216. The Posttest Only group, containing 13

subjects after deletions, was considered only in separate analyses. Thus, the total N (omitting the Posttest Only group) is 203 subjects, 129 subjects in the experimental group and 74 subjects in the comparison group. These data are presented in Table 3-7.

Table 3-7

Final Phase I and II Sample Sizes

Experimental		Comparison
Pre & Post 7 Classes	Posttest Only 1 Class	Pre & Post 4 Classes
N = 129	N = 13	N = 74

CHAPTER FOUR

RESULTS

Attitude Rating Scales: General Attitude Toward Handicapped People and Program Specific Attitude

General Analysis Strategy for Attitude Rating Scales

The primary analyses focused on attitude mean scale score comparisons: Experimental and comparison groups were compared on the two main attitude scales--Scale I: General Attitude Toward Handicapped People and Scale II: Program Specific Attitude--as well as on Scale I and Scale II combined: Overall Attitude. The experimental and comparison mean attitude scale scores for each of the individual attitude items were examined separately to determine which attitudes were most and least affected. In addition, some subjects in the experimental and comparison groups reported viewing "Feeling Free" at home. Within each group, those subjects who viewed the program at home were compared with those who did not view at home, to estimate the effects of at-home viewing.

Different group analyses were performed on the two main attitude scales to determine if children responded differently to "Feeling Free" on the basis of sex or age. Different group analyses were also performed on children in different school contexts: Phase I and Phase II, schools, classes, and discussion sections. The purpose of these analyses was to determine if children in different types of school contexts with different experiences with their handicapped peers responded differently to "Feeling Free."

For example, children in Phase I had had more opportunities than children in Phase II for interaction with the disabled student in their classroom or school. Children in different schools had contact with different types of handicapped students (i.e., physical vs. mental handicaps and handicapped students differing in their own self-concept). Children in different classes differed in the amount of contact with the handicapped students in the school. And the discussion sections in which the children participated varied in quality and appropriateness of the discussion for the goals of "Feeling Free."[1]

Finally, scores on measures which assessed children's experience with handicapped people were compared with the attitude rating scale scores to determine whether different experiences with handicapped people affect the impact of "Feeling Free."

Preliminary Analyses

Preliminary analyses examined group frequencies for each attitude item. The majority of the responses fell into the upper positive end of the scale (4-5-6) for many of the items: On the pretest, over 70% of the children responded 4, 5, or 6 to 16 of the 26 items. The frequency tables also indicated that, although the negative part of the scale was not used as frequently as the positive part, the children

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[1]The discussion section comparison differed from the class comparison in that 2 of the 8 experimental classes were divided into 2 sections for "Feeling Free" discussions. Thus there were eight experimental classes and ten discussion groups.

were using the full scale to respond, rather than answering primarily in the extremes. This suggests that the six interval attitude rating scale used in this study is a valid instrument for eliciting a range of attitude responses from children.

Experimental and Comparison Group Analyses for Main Attitude Scales

Mean scores were computed for the experimental and comparison groups on pre and posttests. One-way analyses of variance indicated that the groups' mean attitude scores differed significantly on the pretest scales; the experimental group had higher mean pretest scores than the comparison group. The results are presented in Table 4-1. (The reasons for this pretest difference between experimental and comparison groups will be discussed in Chapter 5.)

Table 4-1

Mean Pretest Scores: Experimental vs. Comparison Group

	EXPT (n=129)	COMP (n=74)	DIFF	F VALUE
Scale I	4.60	4.31	.29 *	$F(1,201) = 5.32$
Scale II	4.61	4.18	.43 **	$F(1,201) = 10.74$
Scales I & II	4.60	4.24	.36 **	$F(1,201) = 9.72$

*$p < .05$

**$p < .01$

Thus in testing for the effects of "Feeling Free" on children's attitudes, one-way analyses of covariance were performed in order to control for pretest differences. The results indicated that, on each of the two attitude scales, as well as the combined scale, there was a significant difference between the experimental and comparison groups' mean post questionnaire scores with pretest differences controlled (Scale I: F (1,200) = 20.52, p <.001; Scale II: F(1,200) = 31.04, p <.001; and Scales I and II combined: F (1,200) = 37.53, p <.001). The experimental group had a significantly more positive attitude on the posttest than did the comparison group, after controlling for pretest differences. A comparison of pre and posttest mean scores for the experimental and comparison groups on the attitude scales is presented in Table 4-2.

Experimental and Comparison Group Analyses for Each Attitude Item

Mean scores for the experimental and comparison groups were computed separately for each attitude item. These separate analyses were performed to examine which particular attitudes were affected and which were not. One-way analyses of variance were performed on the pretest means to determine the difference between the two groups on each of the items.

On Scale I, the pretest means of the experimental group differed significantly from the pretest means of the comparison group on 3 of the 12 items. On Scale II, the pretest means of the experimental group differed significantly from the pretest means of the comparison group on 4 of the 14 items.

Table 4-2

Pre and Posttest Mean Attitude Scale Scores For

Experimental and Comparison Groups

Scale: 1 (least) to 6 (most positive)

SCALE I: GENERAL ATTITUDE TOWARD HANDICAPPED PEOPLE

	PRE	POST	PRE-POST CHANGE
EXPT (n=129)	$\bar{x}$=4.60 (s.d.=.86)	$\bar{x}$=4.93 (s.d.=.75)	+.33 --
COMP (n=74)	$\bar{x}$=4.31 (s.d.=.91)	$\bar{x}$=4.38 (s.d.=.85)	+.07 --
DIFF BETWEEN EXPT & COMP	.29[a]	.55[b]	--

SCALE II: PROGRAM SPECIFIC ATTITUDE

EXPT (n=129)	$\bar{x}$=4.61 (s.d.=.92)	$\bar{x}$=5.05 (s.d.=.79)	+.44 --
COMP (n=74)	$\bar{x}$=4.18 (s.d.=.85)	$\bar{x}$=4.22 (s.d.=1.06)	+.04 --
DIFF BETWEEN EXPT & COMP	.43[c]	.83[b]	--

SCALES I & II: OVERALL ATTITUDES

EXPT (n=129)	$\bar{x}$=4.60 (s.d.=.80)	$\bar{x}$=5.00 (s.d.=.68)	+.40 --
COMP (n=74)	$\bar{x}$=4.24 (s.d.=.77)	$\bar{x}$=4.30 (s.d.=.88)	+.06 --
DIFF BETWEEN EXPT & COMP	.36[c]	.70[b]	--

[a] $p<.05$

[b] $p<.001$ with pretest difference between E & C controlled through ANCOVA.

[c] $p<.01$

One-way analyses of variance were also performed on the posttest means, followed by a one-way analysis of covariance to adjust for the unequal pretest scores: only 3 of the 21 significant items lost their significant mean posttest differences as a result of covarying on pretest scores. After controlling for pretest differences between experimental and comparison groups through the use of analyses of covariance, significant differences in attitude mean scale scores between experimental and comparison groups were found for 6 out of the 12 items on Scale I: General Attitude Toward Handicapped People, and 12 out of the 14 items on Scale II: Program Specific Attitude. Therefore, on the two scales combined, the Overall Attitude scale, 18 out of the 26 items showed significant differences between experimental and comparison groups' mean posttest scores, after controlling for pretest differences. All differences, significant and nonsignificant, were in the direction of higher posttest means for the experimental group.

A summary of the results is presented in Table 4-3, followed by a presentation of experimental and comparison group comparisons on pre and postest scores for each item in Table 4-4.

Table 4-3

Summary of "Significance" of Individual Attitude Items

(when experimental and comparison groups are compared on the posttest with pretest differences controlled)

(Number and % of "significant" items)

	SIGNIFICANT	NOT SIGNIFICANT	TOTAL # OF ITEMS
SCALE I	6 (50%)	6 (50%)	12 --
SCALE II	12 (86%)	2 (14%)	14 --
SCALES I & II	18 (69%)	8 (31%)	26 --

Table 4-4

Experimental and Comparison Group Comparisons

On Pretest Scores and Posttest Scores for Each Item

Scale I: General Attitude Toward Handicapped People[a]

	PRE					POST					
	EXPT		COMP		EXPT/ COMP	EXPT		COMP		EXPT/COMP	
Item	$\bar{x}$	s.d.	$\bar{x}$	s.d.	$\bar{x}$ diff.	$\bar{x}$	s.d.	$\bar{x}$	s.d.	$\bar{x}$ diff.	Adj.[b] $\bar{x}$ diff.
(1)	5.08	1.31	4.95	1.12	.13	5.55	.87	4.77	1.59	.78***	.75***
(2)	4.69	1.65	4.37	1.83	.32	4.78	1.45	4.64	1.54	.14	.06
(3)	4.94	1.49	5.05	1.28	.11	5.29	1.23	5.07	1.29	.22	.25
(4)	4.59	1.47	4.28	1.82	.31	4.84	1.50	4.36	1.85	.48*	.39
(5)	4.51	1.64	3.88	1.84	.63*	4.68	1.63	4.04	1.87	.64*	.33
(6)	4.99	1.55	4.73	1.64	.26	5.26	1.35	4.88	1.60	.38	.25
(7)	3.98	1.71	3.67	1.67	.31	4.61	1.43	3.89	1.73	.72**	.57**
(8)	3.73	1.82	3.75	1.71	.02	4.27	1.57	3.37	1.65	.90***	.96***
(9)	5.09	1.45	4.75	1.62	.34	5.36	1.28	4.84	1.52	.52**	.41*
(10)	5.57	.94	5.14	1.53	.43*	5.63	.89	5.36	1.29	.27	.13
(11)	3.55	1.71	2.89	1.66	.66*	3.95	1.80	3.14	1.68	.81**	.58*
(12)	4.52	1.52	4.22	1.71	.30	4.87	1.43	4.19	1.65	.68**	.58**

[a] All posttest differences, both significant and nonsignificant, are in the direction of higher posttest means for the experimental group.

*, **, *** differences significant at <.05 level, <.01 level, and <.001 level, respectively.

[b] adjusted for pretest

Table 4-4
(continued)

Experimental and Comparison Group Comparisons

On Pretest Scores and Posttest Scores for Each Item

Scale II: Program Specific Attitude[a]

	PRE					POST					
	EXPT		COMP		EXPT/ COMP	EXPT		COMP		EXPT/COMP	
Item	$\bar{x}$	s.d.	$\bar{x}$	s.d.	$\bar{x}$ diff.	$\bar{x}$	s.d.	$\bar{x}$	s.d.	$\bar{x}$ diff.	Adj.[b] $\bar{x}$ diff.
(1)	5.09	1.64	5.04	1.54	.05	5.39	1.40	4.97	1.60	.42*	.42*
(2)	4.89	1.48	4.48	1.58	.41	5.51	.78	4.25	1.78	1.26***	1.10***
(3)	4.74	1.51	4.42	1.63	.32	5.21	1.20	4.54	1.70	.67**	.57**
(4)	4.77	1.68	3.86	2.03	.91***	5.41	1.41	4.27	1.93	1.14***	.85***
(5)	3.56	1.82	3.41	1.88	.15	4.60	1.79	3.57	1.89	1.03***	1.04***
(6)	4.91	1.69	4.69	1.74	.22	5.06	1.72	4.51	1.97	.55*	.46
(7)	5.21	1.34	4.46	1.97	.75*	5.40	1.45	5.10	1.44	.30	.13
(8)	4.63	1.79	4.33	1.76	.30	5.10	1.55	4.52	1.72	.58*	.47*
(9)	3.75	1.99	3.30	1.91	.45	5.38	1.35	3.44	1.95	1.94***	1.78***
(10)	3.76	1.58	3.16	1.66	.60	4.30	1.72	3.42	1.77	.88***	.60*
(11)	5.10	1.42	4.90	1.53	.20	5.34	1.28	4.81	1.73	.53*	.43*
(12)	4.38	1.84	3.78	1.89	.60*	5.14	1.52	3.84	1.80	1.30***	1.02***
(13)	4.42	1.47	4.35	1.87	.47	5.41	1.05	4.31	1.91	1.10***	.79***
(14)	4.94	1.53	4.65	1.75	.29	5.56	1.14	4.68	1.75	.88***	.60***

[a]All posttest differences, both significant and nonsignificant, are in the direction of higher posttest means for the experimental group.

*, **, *** differences significant at <.05 level, <.01 level, and <.001 level, respectively.

[b]adjusted for pretest

An examination of the largest and smallest adjusted mean difference (covarying for pretest differences) between experimental and comparison groups indicates which attitudes "Feeling Free" is most and least likely to affect. Overall, there were larger mean differences on Scale II: Program Specific Attitude items as compared with Scale I: General Attitude Toward Handicapped People items.

On Scale I, the most significant difference between the two groups was on item #8, "What handicapped people do everyday is very different from what other people do," the experimental group changing toward the realization that what handicapped people do everyday is not very different from what other people do. There was also substantial difference between the groups on item #1, "A handicapped person can have a job," the experimental group changing toward the realization that handicapped people can have jobs. On the other hand, the smallest mean difference between the two groups was on item #2, "Handicapped children should be in separate classrooms by themselves. Item #10, "A handicapped person could be my friend," also showed little difference between the two groups. (The children responded very positively to this item on the pretest, so a ceiling effect may be operating.)

On Scale II, the largest mean difference between experimental and comparison groups was on item #9, "A person who uses a wheelchair can drive a car," the experimental group realizing that a person in a wheelchair can drive a car. There was also substantial difference between the groups on item #2, "A person in a wheelchair can help other people," the experimental group changing toward the realization that a person in

a wheelchair can help other people. On the other hand, the only two items which did not show significant difference between the two groups were item #7, "A boy who has problems reading and writing can't skateboard very well," and item #6, "A deaf person can't communicate with other people."

Comparing those 6 items on Scale I: General Attitude Toward Handicapped People which reached significance with the five attitude dimensions originally incorporated into the questionnaire construction, 2 of the 3 items in Dimension I: Capabilities, skills, and potentials of handicapped people reached significance; 2 of the 3 items in Dimension V: General perceptions of handicapped people reached significance; 1 of 3 items in Dimension II: Feelings of handicapped people reached significance; and 1 of 3 items in Dimension III: Handicapped people as friends reached significance. The 1 item in Dimension IV: Treatment and approachability of handicapped people did not reach significance. In addition, those items which indicated the most significant adjusted mean difference between experimental and comparison groups ($p<.001$) were from Dimension I: Capabilities, skills, and potentials of handicapped people. Thus viewing "Feeling Free" affected attitudes in 4 of the 5 attitude dimensions, and the attitudes regarding the capabilities, skills, and potentials of handicapped people were especially affected.

An examination was also made of the 12 of the 14 items on Scale II: Program Specific Attitude (containing 2 items for each handicapped cast member) which reached significance. There were substantial adjusted mean differences between experimental and comparison groups on 6 of

the 14 items ($p<.001$). These 6 items reflected program content about a girl who is blind (2 items), about an adult guest who uses a wheelchair (2 items), about a girl who is a dwarf (1 item), and about a boy who has problems reading and spelling (1 item).

There were also substantial adjusted mean differences between the groups ($p<.01$) on 2 items which reflected program content about a boy who is deaf and a girl who is a dwarf. Four items which showed the least adjusted mean difference, but still significant ($p<.05$), reflected program content for the blind adult guest (2 items) and the boy with cerebral palsy who uses crutches (2 items). The only 2 items which did not reach significance reflected program content about a boy who is deaf and about a boy who has problems reading and spelling.

Thus viewing "Feeling Free" affected children's understanding and attitudes toward each of the disabled cast members. Attitudes toward the girl who is blind and the adult guest in a wheelchair were especially affected.

"Feeling Free" Home Viewers Group Analysis

Although neither encouraged nor discouraged to view "Feeling Free" at home, a considerable number of children, in both experimental and comparison groups, did so. The data were analysed to estimate the effects of this at-home viewing. Of the total sample, 38% viewed at home. Within the experimental group, 41% viewed at home. Within the comparison group, 34% viewed at home (Table 4-5). Of those who viewed at home, approximately half of the experimental group and of the comparison group

saw "Feeling Free" before they took the pretest. Discussions with the children indicated that most children viewed only one or two programs at home.

Table 4-5

Number of Experimental and Comparison Subjects

Who Viewed "Feeling Free" At Home

	NO	YES	TOTAL
EXPT	n = 76	n = 53	N = 129
COMP	n = 49	n = 25	N = 74
TOTALS	N = 125	N = 78	N = 203

One-way analyses of variance comparing the mean posttest scores between those who viewed "Feeling Free" at home and those who did not indicate that for both experimental and comparison groups there were no significant differences between those who viewed at home and those who did not. The results are presented in Table 4-6.

Conclusion of Attitude Rating Scale Analyses

- The experimental and comparison groups' attitude mean scale scores on the pretest differed significantly. Controlling for these pretest differences through the use of one-way analyses of covariance, the posttest differences indicate that the experimental group of viewers had

Table 4-6

"Feeling Free" Home View Group Analysis:

Mean Post Attitude Scale Scores

EXPERIMENTAL GROUP

	No "Feeling Free" Home n=76	Yes "Feeling Free" Home n=53	Difference	P-Value
SCALE I	4.95	4.89	-.06	n.s.
SCALE II	4.98	5.15	+.17	n.s.
SCALES I & II	4.97	5.03	+.06	n.s.

COMPARISON GROUP

	No "Feeling Free" Home n=49	Yes "Feeling Free" Home n=25	Difference	P-Value
SCALE I	4.38	4.39	+.01	n.s.
SCALE II	4.25	4.16	-.09	n.s.
SCALES I & II	4.31	4.26	-.05	n.s.

significantly more positive attitudes toward handicapped people in general and significantly more positive program specific attitudes than did the comparison group of non-viewers.

- On Scale I: General Attitude Toward Handicapped People, 6 of the 12 items indicated significant differences between experimental and comparison attitude mean post scale scores, using one-way analyses of covariance to control for pretest differences. On Scale II: Program Specific Attitude, 12 of the 14 items indicated significant differences between experimental and comparison attitude mean post scale scores, using one-way analyses of covariance to control for pretest differences.

- Viewing "Feeling Free" increased children's positive attitudes on four dimensions reflecting attitudes toward disabled people. Attitudes regarding the capabilities, skills, and potentials of disabled people were especially affected. Viewing "Feeling Free" also increased children's positive attitudes toward each of the disabled cast members. Attitudes toward the girl who is blind and the adult guest in a wheelchair were especially affected.

- In both experimental and comparison groups, one-way analyses of variance indicated that at-home viewers of "Feeling Free" did not differ significantly from those subjects who did not watch at home.

Attitude Mean Scale Score Comparisons for Sex, Age, School Context, and Experiences with Handicapped People

Analyses of variance were performed on the attitude mean scale comparisons for age, sex, school context, and experiences with handicapped people. Significant differences on pretest scores existed between experimental and comparison groups as well as within the different group divisions. Thus when examining posttest differences analyses of covariance were used to control for pretest differences on all comparisons.

Sex

Two-way analyses of covariance comparing the mean post scale scores for males and females in the experimental and comparison groups indicate that there were no main effects for sex and there were no significant interaction effects between sex and experimental/comparison groups.

Age

Two-way analyses of covariance were used to compare the mean scale scores for four different age groups: 8, 9, 10, and 11 and 12 year olds. (Since there were only two 12 year olds the 11 and 12 year olds were combined for these analyses.) The mean scale scores for the different age groups are presented in Table 4-7.

On Scale I there was no main effect with age in the experimental and comparison groups. However, on Scale II there was a main effect with age in the experimental and comparison groups ($F(3,194) = 3.27$, $p<.05$). The adjusted mean scale scores for the different age groups indicate that the

Table 4-7

Pre and Post Attitude Mean Scale Score

Comparisons of Age Groups

SAMPLE SIZE

	Age 8	Age 9	Age 10	Ages 11&12
EXPT	n=14	n=49	n=43	n=23
COMP	n= 6	n=40	n=23	n= 5

SCALE I: PRE MEAN SCALE SCORES

EXPT	4.45	4.54	4.75	4.53
COMP	4.44	4.20	4.24	5.29

SCALE II: PRE MEAN SCALE SCORES

EXPT	4.52	4.42	4.81	4.67
COMP	4.50	4.17	4.19	3.83

SCALE I: POST MEAN SCALE SCORES

EXPT	4.86	4.98	4.96	4.79
COMP	4.58	4.37	4.34	4.44

SCALE II: POST MEAN SCALE SCORES

EXPT	4.78	5.10	5.15	4.93
COMP	4.54	4.27	4.27	3.29

9 year olds had the highest mean post scale score (4.88); the 10 year olds had the second highest (4.73); in third rank were the 8 year olds (4.62); and the 11 and 12 year olds had the lowest mean post scale score (4.48).

There were no significant interaction effects between age and experimental/comparison groups on Scale I or Scale II.

School Context: Phase I and II, Schools, Classes, Discussion Sections

One-way analyses of covariance comparing the post attitude mean scale scores of children in the experimental group in different school contexts indicate that there were no significant differences between different school contexts on Scale I or Scale II. Specifically, the mean post scale scores, after controlling for pretest differences, did not differ significantly between Phase I and Phase II subjects, among the seven experimental classes, among the nine discussion groups, and among the subjects in School A, School B, and School C. This last finding indicates that School B, which viewed the series via MET over a period of six weeks (compared with the three week viewing period of the other schools) did not differ significantly from School A and School C.

One-way analyses of covariance comparing the post attitude mean scale scores of children in the comparison group in different school contexts indicate that Phase I (School A) classes had significantly higher attitude mean scale scores for Scale I than did Phase II (School D) classes, after controlling for pretest differences ($F(1,71) = 5.32$, $p<.05$). However, there were no significant differences between these classes on Scale II, after controlling for pretest differences. In addition, there were no

significant differences between the two classes in School A and there were no significant differences between the two classes in School D.

Experiences with Handicapped People

Pretest scores on five measures which assessed children's experiences with handicapped people were compared with pre and post attitude mean scale scores for experimental and comparison groups. The purpose of these analyses was to determine whether the amount and kind of experience children had had with handicapped people affected their attitude mean scale scores and affected their reactions toward the "Feeling Free" series.

Two mean scale comparisons were made for Scale I and Scale II:

- Pretest report of experience with handicapped people compared with pre attitude scale score; and
- Pretest report of experience with handicapped people compared with post attitude scale score.

Although many of the pre and post comparisons for the experimental group reached significance, none of the pre or post comparisons for the comparison group reached significance. The reasons for this difference are not apparent. Thus the results from the experimental group, which are reported below, must be considered as tentative until confirmed by further research.

(1) True Story Writers' Attitudes (Phase I and Phase II). The attitude mean scale scores of those subjects who wrote true stories were examined. The attitude portrayed in the story is an indication of the

child's experience with a handicapped person.

On Scale I, one-way analyses of variance indicate that in the experimental group there were significant differences on both pre and posttests between the attitude mean scale scores of those who wrote negative, neutral, or positive true stories. The results are presented in Table 4-8. Newman-Keuls Pairwise tests indicated that those subjects who wrote negative stories received significantly lower attitude scores on Scale I than those who wrote positive or neutral stories. There were no significant differences between those who wrote neutral as compared with positive stories.

On Scale II, one-way analyses of variance indicate that there were no significant differences in these comparisons. (Newman-Keuls Pairwise tests confirmed this finding.) However, the trend on Scale II reflected the same pattern as Scale I of lower attitude scores for those subjects who wrote negative as compared with neutral or positive stories.

Analyses of covariance were conducted to determine whether these differences in experience affected the impact of the series. On Scale I and Scale II, one-way analyses of covariance, controlling for pretest differences, indicate that the post attitude mean scale scores of those who wrote negative, neutral, or positive true stories do not differ significantly.

(2) Number of Handicapped People Just Seen or Know Well (Phase I). For the experimental groups on Scale I and Scale II of pre and posttests, one-way analyses of variance indicate that the attitude mean scale scores did not differ on the basis of the number of handicapped people just seen or the number of handicapped people known well.

Table 4-8

True Story Writers Only:

Story Attitude Compared With Attitude Mean Scale Scores

(Experimental Group, Phase II)

SCALE I: GENERAL ATTITUDE TOWARD HANDICAPPED PEOPLE

Story Attitude Values (Pre):	PRE Scale Attitude	POST Scale Attitude	PRE-POST Change	ANCOVA*
Negative Att (n=13)	4.00	4.42	+.42	--
Neutral Att (n=13)	4.65	5.11	+.46	--
Positive Att (n=33)	4.75	5.02	+.27	--
F and P Values:	F(2,56)=3.60 p<.05	F(2,56)=3.24 p<.05	--	n.s.
Newman-Keuls Pairwise Tests:	neg<neut, p<.05	neg<neut, p<.05	--	--
	neg<pos, p<.05	neg<pos, p<.05	--	--

*Controlling for pretest differences.

Table 4-8

True Story Writers Only:

Story Attitude Compared With Attitude Mean Scale Scores

(Experimental Group, Phase II)

(continued)

SCALE II: PROGRAM SPECIFIC ATTITUDE

Story Attitude Values (Pre):	PRE Scale Attitude	POST Scale Attitude	PRE-POST Change	ANCOVA*
Negative Att (n=13)	4.06	4.52	+.46	--
Neutral Att (n=13)	4.27	5.13	+.86	--
Positive Att (n=33)	4.54	5.04	+.50	--
F and P Values:	n.s.	n.s.	--	n.s.
Newman-Keuls Pairwise Tests:	n.s.	n.s.	--	--

*Controlling for pretest differences.

(3) Number of Handicapped People in Family (Phase II). On the pretest of Scale I and Scale II in the experimental group, one-way analyses of variance indicate that those subjects who have handicapped people in their family had significantly higher attitude mean scale scores than those who do not. However, although their scores continued to be higher on the posttest, the differences did not remain significant. The results are presented in Table 4-9.

Analyses of covariance were conducted to determine whether these differences in experience affect the impact of the series. On Scale I and Scale II, one-way analyses of covariance, controlling for pretest differences, indicate that the post attitude mean scale scores of those subjects who have handicapped people in their families do not differ significantly from the scores of those subjects who do not have handicapped people in their family.

(4) Number of Handicapped People Know/Play With (Phase II). On pre and posttests of Scale I and Scale II in the experimental group, one-way analyses of variance indicate that there were significant differences between the mean scale scores of those who knew or played with no handicapped people, 1 or 2 handicapped people, and 3 or more handicapped people. The results are presented in Table 4-10. Newman-Keuls Pairwise tests indicated that, on Scale I, the relationship was curvilinear: Those who knew no handicapped people received the lowest mean scale scores; those who knew 1 or 2 handicapped people received the highest mean scale scores; and those who knew 3 or more handicapped people had mean scale scores in

Table 4-9

Number of Handicapped People in Family Compared With Attitude Mean Scale Scores (Experimental Group, Phase II)

SCALE I: GENERAL ATTITUDE TOWARD HANDICAPPED PEOPLE

# of Handicapped People in Family:	PRE Scale Attitude	POST Scale Attitude	PRE-POST Change	ANCOVA*
0 (n=46)	4.65	5.05	+.40	--
≥1 (n=10)	5.29	5.46	+.17	--
F and P Values:	F(1,54)=6.55, p<.05	n.s.	--	n.s.

SCALE II: PROGRAM SPECIFIC ATTITUDE

# of Handicapped People in Family:	PRE Scale Attitude	POST Scale Attitude	PRE-POST Change	ANCOVA*
0 (n=46)	4.63	5.01	+.38	--
≥1 (n=10)	5.31	5.37	+.06	--
F and P Values:	F(1,54)=4.32, p<.05	n.s.	--	n.s.

*Controlling for pretest differences.

Table 4-10

Number of Handicapped People Known Compared With

Attitude Mean Scale Scores

(Experimental Group, Phase II)

SCALE I: GENERAL ATTITUDE TOWARD HANDICAPPED PEOPLE

# of Handicapped People Known(pre):	PRE Scale Attitude	POST Scale Attitude	PRE-POST Change	ANCOVA*
0 (n=10)	4.18	4.43	+.25	--
1 or 2 (n=38)	5.02	5.39	+.37	--
≥3 (n= 8)	4.32	4.72	+.40	--
F and P Values:	F(2,53)=8.61 p<.001	F(2,53)=10.42 p<.001	--	n.s.
Newman-Keuls Pairwise Tests:	0<1 or 2,p<.05 3+<1 or 2,p<.05	0<1 or 2,p<.05 3+<1 or 2,p<.05		

SCALE II: PROGRAM SPECIFIC ATTITUDE

# of Handicapped People Known(pre):	PRE Scale Attitude	POST Scale Attitude	PRE-POST Change	ANCOVA*
0 (n=10)	3.88	4.36	+.48	--
1 or 2 (n=38)	5.01	5.31	+.30	--
≥3 (n= 8)	4.60	4.85	+.25	--
F and P Values:	F(2,53)=6.59 p<.01	F(2,53)=6.09 p<.01	--	n.s.
Newman-Keuls Pairwise Tests:	0<1 or 2,p<.05	0<1 or 2,p<.05	--	--

*Controlling for pretest differences.

between these two groups.

On Scale II, those who knew no handicapped people had significantly lower scores than those who knew 1 or 2 handicapped people. There was not a significant difference between those who knew 1 or 2 as compared with ≥3 handicapped people. However, the trend of the Scale II scores is similar to the Scale I curvilinear pattern.

On Scale I and Scale II, one-way analyses of covariance, controlling for pretest differences, indicate that the post attitude mean scale scores of those who knew or played with no handicapped people, 1 or 2 handicapped people, and 3 or more handicapped people do not differ significantly.

(5) Type of Experience with Handicapped People Know or Played With (Phase II). In the experimental group one-way analyses of variance indicate that there were no significant differences between the mean attitude scale scores of those subjects who liked the handicapped people they knew "not at all," "a little," and "a lot," on pre and post-tests of Scale I and Scale II.

Conclusion of Attitude Mean Scale Score Comparisons for Sex, Age, School Context, and Experiences with Handicapped People

• Sex: There were no significant main effects of sex and no significant interaction effects between sex and experimental/comparison groups. Boys and girls do not differ in their attitudes toward handicapped people and boys and girls do not react differently to "Feeling Free."

• Age: On Scale I there was no main effect with age in the experimental and comparison groups. However, on Scale II there was a main effect with age in the experimental and comparison groups. There were no significant interaction effects between age and experimental/comparison groups on Scale I or Scale II.

Nine and ten year olds had more positive attitudes on the posttest toward the program specific content than did eight or eleven and twelve year olds. However, the different age groups did not react differently to "Feeling Free."

• School Context: In the experimental group, children in different school contexts: Phase I and Phase II, schools, classes, and discussion sections, did not react differently to the "Feeling Free" programs. In the comparison group, there were significant posttest differences between Phase I (School A) and Phase II (School D) on Scale I, with Phase I subjects higher in postcest scores (after adjusted for pretest differences) than were Phase II subjects. However, there were no significant posttest differences on Scale II.

Thus, children in different types of school contexts with different experiences with their handicapped peers did not react differently to "Feeling Free."

• Experience with Handicapped People: Comparisons on three of the five measures which assess children's experiences with handicapped people in the experimental group indicate that children's attitudes differed on the basis of amount and kind of experience with handicapped people, and these differences in experience did not affect the impact of the series.

However, none of the pre or posttest comparisons for the comparison group reached significance. The main significant differences for the experimental group are:

(1) On Scale I, one-way analyses of variance indicated that there were significant differences on pre and posttest between the attitude mean scale scores of those who wrote negative, neutral, or positive true stories about a handicapped person. Newman-Keuls Pairwise tests indicated that those subjects who wrote negative stories received significantly lower attitude scores on Scale I than those who wrote positive or neutral stories. On Scale II, there were no significant differences in these comparisons, although the trend reflected the same pattern as Scale I of lower attitude scores for those subjects who wrote negative as compared with neutral or positive stories.

On Scale I and Scale II, one-way analyses of covariance, controlling for pretest differences, indicate that the post attitude mean scale scores of those who wrote negative, neutral, or positive true stories do not differ significantly.

These results indicate that children's attitudes do differ on the basis of type of experiences with handicapped people, and these differences in experience do not affect the impact of the series.

(2) On the pretest of Scale I and Scale II those subjects who had handicapped people in their family had significantly higher mean scale scores than those who did not. However, although their scores continued to be higher on the posttest, the differences did not remain significant.

On Scale I and Scale II, one-way analyses of covariance, controlling for pretest differences, indicate that the post attitude mean scale scores of those subjects who have handicapped people in their families do not differ significantly from the scores of those subjects who do not have handicapped people in their family.

These results indicate that children who have handicapped people in their family have more positive attitudes toward handicapped people than those who do not, and this difference does not affect the impact of the series.

(3) On Scale I, a curvilinear relationship exists on pre and post-tests between the mean attitude scale scores and the number of handicapped people known or played with: Those who knew no handicapped people received the lowest mean scale scores; those who knew 1 or 2 handicapped people received the highest mean scale scores; and those who knew 3 or more handicapped people had mean scale scores in between these two groups.

On Scale II, those who knew no handicapped people had significantly lower scores than those who knew 1 or 2 handicapped people. There was not a significant difference between those who knew 1 or 2 as compared with 3 handicapped people. However, the trend of the Scale II scores is similar to the Scale I curvilinear pattern.

On Scale I and Scale II, one-way analyses of covariance, controlling for pretest differences, indicate that the post attitude mean scale scores of those who knew or played with no handicapped people, 1 or 2 handicapped people, and 3 or more handicapped people

do not differ significantly.

These results indicate that children's attitudes do differ on the basis of amount of experience with handicapped people, and these differences in experience do not affect the impact of the series.

Descriptive Measures: Write a Story and Definitions of Disability Labels

Frequency distributions of pre and posttest responses to the two descriptive measures--Write a Story measure and definitions of disability labels--were examined to determine differences in response changes from pre to posttests between experimental and comparison groups. Responses to most of the descriptive items indicated that there were no substantial differences in response changes between experimental and comparison groups. Only responses to items which indicated differences in changes between the two groups will be described here. A fuller report of data from these measures and analyses is presented in Appendix D.

Write a Story: Person Perception Measure

Chi-square tests indicated that there were no significant differences in response changes from pre to posttests between experimental and comparison groups on attitude, content, and theme dimensions of the story measure.

Definitions of Disability Labels

Chi-square tests indicated that there were no significant differences in response changes from pre to posttests between experimental and comparison groups on the first six disability labels: (1) "handicapped/

disabled," (2) "blind," (3) "deaf," (4) "dwarf," (5) "retarded," (6) "crippled (uses crutches or a wheelchair)." However, there were significant differences in response changes from pre to post between experimental and comparison groups on the definitions for the disability labels "cerebral palsy" and "dyslexia."

As expected, almost none of the children on the pretest knew the correct definition for the disability labels "cerebral palsy" and "dyslexia." On the posttest, in correct answers for the term "cerebral palsy" there was a significant amount of gain (almost one-quarter of the children) in the experimental group as compared with the comparison group ($X^2(2) = 15.42$, $p<.001$). The results are presented in Table 4-11. In correct answers for the term "dyslexia" there was a significant amount of gain (32% of the children) in the experimental group as compared with the comparison group on the posttest ($X^2(1) = 27.60$, $p<.001$). The results are presented in Table 4-12.

Table 4-11

Response Changes for the Definitions of "Cerebral Palsy"

	Expt	Comp	Total	
Incorrect/N/A→ Correct	26 (22%)	1 (1%)	27	
No Change	89 (76%)	67 (96%)	156	
Correct→ Incorrect/N/A	2 (2%)	2 (3%)	4	
Total	117	70	187	($X^2(2)=15.42$, $p<.001$)

Table 4-12

Response Changes for the Definition of "Dyslexia"

	Expt	Comp	Total
Incorrect/N/A→ Correct	37 (32%)	-0- -0-	37
No Change	80 (68%)	70 (100%)	150
Total	117	70	187 ($\chi^2(1)=27.60, p<.00$

"Feeling Free" Group Discussions

The teacher-led group discussions following viewing of "Feeling Free" were examined to determine if different types of discussions produced different reactions to the series. As described in Chapter 3, the groups were rated on the variables "appropriateness of discussions," "mood of discussions," and "overall rating of discussions," and content analyses of the discussion orientation and themes were also performed.

Almost all the orientation and content categories were discussed at least once in each of the discussion groups, and the discussion sections did not differ substantially in the orientation of their discussions or the content they discussed. Thus differences in discussion content could not be compared to different reactions to the "Feeling Free" program.

On the other hand, the groups differed in their scores on the group discussion rating variables: "appropriateness," "mood," and "overall." The scores, on a scale of 1 to 5, ranged from 2.0 to 4.6. In addition,

the three variables correlated highly with each other (Appropriateness/Mood: $r = .76$ ($n = 10$ groups), $p<.01$; Appropriateness/Overall: $r = .99$ ($n = 10$ groups), $p<.001$; Mood/Overall: $r = .82$ ($n = 10$ groups), $p<.01$).

Average group discussion ratings on the variables "appropriateness," "mood," and "overall" were examined to determine the relationship of these scores with mean attitude scale scores. Pearson correlation coefficients indicate that there was essentially no correlation between the group discussion rating scores and the group attitude mean scale scores at either pre or posttests. The r coefficients ranged from -.46 to +.28 for Scale I and Scale II pre and posttests. Therefore, the type of group discussion in which the children participated did not seem to affect the impact of the "Feeling Free" series.

CHAPTER FIVE

DISCUSSION AND CONCLUSIONS

The main hypothesis of this thesis was confirmed: Children who viewed the "Feeling Free" television series and participated in classroom discussions following viewing were more aware, more understanding, and more accepting of handicapped people than those who did not, as measured by the attitude rating scales in the Children's Attitudes Toward Handicapped People Questionnaire. Children increased in positive attitudes toward handicapped people in general and they were able to recall the specific abilities and lifestyles of the handicapped people presented in the programs.

The two subsidiary hypotheses were not confirmed: (1) Although children's attitudes differed on the basis of amount and kind of experience they had had with handicapped people, these differences in experience did not affect the impact of the series; (2) Different types of classroom discussions following viewing of "Feeling Free" did not affect the impact of the series.

Main Hypothesis: Children who view the "Feeling Free" series and participate in subsequent classroom discussions of what they viewed will be more aware, more understanding, and more accepting of handicapped people than those who do not.

The results of the two attitude rating scales in the questionnaire confirmed the main hypothesis. One-way analyses of covariance, controlling for pretest differences, were used to compare the experimental and comparison

groups' attitudes. Posttest differences indicate that the experimental group had significantly more positive attitudes on both Scale I: General Attitude Toward Handicapped People, and on Scale II: Program Specific Attitude, than did the comparison group. Thus viewing "Feeling Free" increased children's positive attitudes toward specific show content and these results were generalizable to more general attitudes regarding handicapped people.

Attitude changes on each attitude item in the rating scales were examined separately to determine which particular attitudes were most and least affected. After controlling for pretest differences between experimental and comparison groups through the use of one-way analyses of covariance, significant differences in attitude mean scores between experimental and comparison groups were found for 6 of the 12 items on Scale I: General Attitude Toward Handicapped People, and 12 of the 14 items on Scale II: Program Specific Attitude. Therefore, on the two scales combined, the Overall Attitude scale, 18 of the 26 items showed significant differences between experimental and comparison groups' mean posttest scores, after controlling for pretest differences. All differences, significant and nonsignificant, were in the direction of higher posttest mean for the experimental group.

Viewing "Feeling Free" increased children's positive attitudes on four dimensions reflecting attitudes toward handicapped people: (1) Capabilities, skills, and potentials of handicapped people; (2) Feelings of handicapped people; (3) Handicapped people as friends; and (4) General perceptions of handicapped people. The 5th dimension, Treatment and

approachability of handicapped people, could not be tested because only one item remained after item deletions due to low correlations with total scale scores. This attitude area may be more difficult to test than the other attitude dimensions.

The most increase in children's positive attitudes toward handicapped people occurred in the dimension Capabilities, skills, and potentials of handicapped people. Much of the "Feeling Free" program content reflected this attitude dimension. For example, "Feeling Free" presented "Close-Up" segments of handicapped children competently engaged in interesting activities. There were "Spotlight" segments in which handicapped children skillfully demonstrated a special hobby or game. And there were "Questions" segments in which handicapped children discussed ways of coping with disability and related their career plans for the future. Thus "Feeling Free" was successful in communicating its most predominant message: Handicapped people are capable, skillful, and have potentials to develop fully and have careers.

Viewing "Feeling Free" also increased children's positive attitudes toward each of the disabled people presented in the programs. Thus attitudes toward blindness, deafness, dwarfism, dyslexia, and toward people who use crutches or wheelchairs were affected.

Although children who viewed "Feeling Free" increased in positive attitudes toward handicapped people in general as well as toward specific program content, the results indicated that more positive attitude gains were made on Scale II: Program Specific Attitude as compared with the attitude gains on Scale I: General Attitude Toward Handicapped People.

The effects of the program seem to be more apparent, as one would expect, in Scale II which assesses concretely an understanding of the content presented in the "Feeling Free" programs. However, as indicated above, the effects of the programs were generalizable to more general attitudes toward handicapped people.

Two issues associated with the main hypothesis results require further clarification and consideration: (1) The experimental and comparison groups differed significantly in their pretest attitude scores, with the experimental group having more positive attitudes on the pretest than did the comparison group; and (2) Children in both experimental and comparison groups already had fairly positive attitudes on the pretest for our particular attitude scales.

The lower pretest scores in the comparison group can be attributed to two of the four comparison classes: Phase II (School D) comparison classes had significantly lower pre and posttest scores than did the Phase I (School A) comparison classes and the experimental classes. The reasons for these lower scores are not immediately apparent. One possibility may be the nature of the disability these children had had contact with. Many of the classes in the school were integrated with deaf children. Difficulties in communication may have caused a decrease in positive attitudes in this mainstreamed context. The communication barrier is one obstacle that the children in the other schools did not have to cope with to such a great extent. The students in School D may also have differed from the other students in the sample on characteristics which were not measured and which we did not detect in our field research. A more complex

experimental design is needed to confirm which student characteristics and what kinds of mainstreamed contexts influence attitudes toward handicapped people.

The children's moderately positive attitudes on the pretest may be interpreted in several ways. As discussed in the literature review, three attitude studies which have recently been conducted show similar positive attitude trends. Rapier, Adelson, Carey and Croke (1972) administered to elementary school children a semantic differential rating technique before and after a year-long integration experience. On some of the items 75% of the children held positive attitudes toward handicapped children before the integration experience. Westervelt (1978) used a picture sociometric measure to assess the influence of a film on children's attitudes toward handicapped people. During a pilot phase, he deleted more than half his sample of 98 children due to their already existing positive attitudes toward handicapped people. Similarly, White (1978), also using a picture sociometric measure, found that children held surprisingly positive attitudes toward handicapped people.

These results in these three studies, as well as the results in the present study, differ substantially from hundreds of other attitude studies which have reported that children generally have negative attitudes toward handicapped people. Since the studies which report positive attitudes are more recent than the other attitude studies, today's children may have been influenced by mass media coverage concerning handicapped people. Children's television programs are increasingly featuring handicapped people. Such programs include: "ZOOM," "Mister Rogers," "Rebop," "Sesame Street,"

"Big Blue Marble," ABC and NBC "Afterschool Specials," commercial programs such as "Baretta," "The Hulk," "Hardy Boys," "Lou Grant," and "The White Shadow," as well as television news coverage of handicapped people.

Another explanation for the children's positive attitudes may be their mainstreamed school environment. As discussed in the literature review, some studies report that integration experiences increase children's positive attitudes toward their handicapped peers (e.g., Rucker, Howe, and Snider, 1969; Strauch, 1970; Goodman, Gottlieb and Harrison, 1971; Rapier, Adelson, Carey and Croke, 1972; Richardson, Ronald and Kleck, 1974; Guralnick, 1976). Children's contact with the handicapped children in their school may have increased their positive attitudes toward handicapped people.

The children's attitudes were also examined for age and sex differences and to determine if children responded differently to "Feeling Free" on the basis of age or sex. The results on sex differences indicated that girls and boys do not differ in their attitudes toward handicapped people and that girls and boys do not react differently to the series. Boys' and girls' similar reactions to "Feeling Free" indicate that the series is equally effective for both boys and girls.

The finding of no attitude differences between boys and girls is somewhat inconsistent with other attitude studies which have examined sex differences (Yuker, Block, and Younng, 1966). Among studies which have included children in their samples, the majority of studies report that girls have more positive attitudes toward handicapped people than do boys (Moed, Wight, Feshbach, and Sandry, 1963; Blanton and Nunnally, 1964).

The results on age differences indicated that the different age groups (8 to 12 year olds) did not differ in their attitudes toward handicapped people in general. However, the age groups did differ in their attitudes toward the program specific content. Nine and ten year olds had more positive attitudes on the posttest toward the program specific content than did eight or eleven and twelve year olds. However, the different age groups did not react differently to "Feeling Free." Thus the series is equally effective for children 8 to 12 years old.

Differences between the Posttest Only Group and the other experimental classes were examined to assess the existence of effects due to pretesting. The results indicated that the Posttest Only Group had significantly lower attitudes than the other experimental classes on Scale II: Program Specific Attitude, but not on Scale I: General Attitude Toward Handicapped People. These findings suggest that the pretest may have had an effect on the posttest with the experience of taking the pretest possibly elevating the posttest scores, but for the program specific items only. Perhaps the pretest is clueing the children to watch for specific content in the programs or sparking their interest in the programs.

Although the Posttest Only Group is small (n = 13), this result indicates that the effects of "Feeling Free" may be even more beneficial if children attempt to answer questions about the program content before they view the programs. Administering a pretest to the children may be a good way for teachers to increase learning from instructional television. Other studies on the effects of television have also shown that pretesting may affect posttest results (e.g., Schramm, 1972 and Collins, 1973). These

results indicate that attitude and television research should carefully examine the effects of pretesting on posttest results.

In sum, the analyses of the attitude rating scales indicated that viewing and discussing the "Feeling Free" television series promoted children's positive attitudes toward handicapped people. In addition to examining the broad effects of the series we also sought to determine if previous experience with handicapped people and different types of classroom discussion affected the impact of the series.

Hypothesis (a): Different experiences children have had with handicapped people will affect the impact of the series.

Results from the Familiarity Index and the Write a Story measures indicated that although children's attitudes differed on the basis of the amount and kind of experience they had had with handicapped people, these differences in experience did not affect the impact of the series. However, it should be noted that significant differences in attitude on the basis of amount and kind of experience with handicapped people were found for the experimental group only. In the comparison group there were no significant differences on pre or posttests on the basis of experience. Thus the finding of different attitudes toward handicapped people on the basis of experience with handicapped people must be considered as tentative until confirmed by further research. The results from the experimental group are discussed below.

The results from the Write a Story measure indicated that there were significant differences on pre and posttests between the attitude mean

scale scores of those who wrote negative, neutral, or positive true stories. The attitude portrayed in the story is considered to be an indication of the child's experience with a handicapped person. Newman-Keuls Fairwise tests indicated that those subjects who wrote negative stories received significantly lower attitude scores on Scale I than those who wrote positive or neutral stories. On Scale II, there were no significant differences in these comparisons, although the trend reflected the same pattern as Scale I of lower attitude scores for those subjects who wrote negative as compared with neutral or positive stories.

On Scale I and Scale II, one-way analyses of covariance, controlling for pretest differences, indicate that the post attitude mean scale scores of those who wrote negative, neutral, or positive true stories do not differ significantly. These results indicate that children's attitudes do differ on the basis of type of experience with handicapped people, as measured by the Write a Story measure, and these differences in experience do not affect the impact of the series.

On the other hand, as measured by the Familiarity Index, there were no significant differences on pre or posttests between the attitude mean scale scores of those subjects who reported liking the handicapped people they knew "not at all," "a little," or "a lot." These results, contrary to the results from the Write a Story measure, indicate that type of experience with handicapped people does not affect children's attitudes toward handicapped people. But, as in the Write A Story measure, the results indicate that the type of experience children had had with handicapped people does not affect the impact of the series.

Results on the Familiarity Index also indicated that children who have handicapped people in their family have more positive attitudes toward handicapped people than those who do not.

On Scale I and Scale II, one-way analyses of covariance, controlling for pretest differences, indicate that the post attitude mean scale scores of those subjects who have handicapped people in their families do not differ significantly from the scores of those subjects who do not have handicapped people in their family.

These results indicate that children who have handicapped people in their family have more positive attitudes toward handicapped people than those who do not, and this difference does not affect the impact of the series.

Lastly, results on the Familiarity Index indicated that on Scale I a curvilinear relationship exists on pre and posttests between the mean scale scores and the number of handicapped people children reported they knew or played with: Those who knew no handicapped people received the lowest mean scale scores; those who knew 1 or 2 handicapped people received the highest mean scale scores; and those who knew 3 or more handicapped people received mean scale scores in between these two groups.

On Scale II, those who knew no handicapped people had significantly lower scores than those who knew 1 or 2 handicapped people. There was not a significant difference between those who knew 1 or 2 as compared with 3 handicapped people. However, the trend of the Scale II scores is similar to the Scale I curvilinear pattern.

On Scale I and Scale II, one-way analyses of covariance, controlling for pretest differences, indicate that the post attitude mean scale scores of those who knew or played with no handicapped people, 1 or 2 handicapped people, and 3 or more handicapped people do not differ significantly.

These results indicate that children's attitudes do differ on the basis of amount of experience with handicapped people, and these differences in experience do not affect the impact of the series. The curvilinear relationship may be due to the increased awareness of the great variability among handicapped people of those children who knew 3 or more handicapped people.

Hypothesis (b): Different types of discussions following viewing of "Feeling Free" will affect the impact of the series.

The teacher-led group discussions following viewing of "Feeling Free" did not differ substantially in the orientation of the discussion or the content which was discussed. All discussion groups included a variety of orientations and themes. On the other hand, the groups did differ substantially in the mood of the discussion and in the appropriateness of the discussion for the goals of "Feeling Free." However, there was little or no relationship between the group discussion rating scores for the variables "mood" and "appropriateness" and the groups' attitude scores on pre or posttests. Thus different types of discussions following viewing of "Feeling Free" did not affect the impact of the series, as measured by the Group Discussion Rating Scale for the variables "mood" and "appropriateness."

It was surprising to learn that the great differences we observed in the types of discussions in which children participated following viewing did not seem to affect the impact of the series. Regarding the mood of the discussions, there were striking differences among the quality of the interactions, teacher-student and student-student dynamics, within the different discussion groups. The mood of the discussions ranged from lively and dynamic interactions among teachers and students to teacher lectures, minimal discussion among the students, and much off-task behavior.

Regarding appropriateness of the discussion, there were striking differences among the discussion groups in the quality of the content being discussed, as determined by the researchers. Some teachers appeared to foster the goals of the series, skillfully using the "Feeling Free" teacher's guide to structure the discussions and lead related activities. Other teachers presented opinions which contradicted the goals of the series (e.g., emphasizing that handicapped people are different) or presented incorrect information (e.g., Hollis, the cast member with cerebral palsy, will be able to walk when he grows up).

Why, in spite of the differences in appropriateness and mood of the discussions, did viewing "Feeling Free" have essentially a uniform effect on all viewers? Perhaps, since the children's attitudes were fairly positive on the pretest, a ceiling effect may have limited the emergence of differences on the posttest among subjects in the experimental group. Perhaps the quality of the discussion was not as important for reinforcing the effects of viewing "Feeling Free" as was a review of the

program content and themes, which all discussions incorporated.

There has been little research conducted on the effects of quality of classroom discussions on the impact of television programs. More research is needed to ascertain what aspects of the discussions, including the role of the teacher, may contribute to increased learning from television.

The effects of the discussion, regardless of quality, cannot be ascertained from the design of the present study, which did not include an experimental group who viewed the series but did not discuss. However, other research utilizing such comparison groups indicates that just the act of having discussions following viewing may have increased children's comprehension of the "Feeling Free" program.

For example, in a recent review of the literature concerning the effect of program related activities on viewer learning, Slaby and Quarforth (in press) cite studies with preschool and early elementary-school children which indicated that, "Young children's learning and performance of televised content can sometimes be enhanced through the use of special techniques related to viewing, such as verbal labeling, rehearsal, role playing, and providing relevant materials" (p. 56) (e.g., Bandura, Grusec, and Menlove, 1966; Coates and Hartup, 1969; and Friedrich and Stein, 1975).

Subsequent evaluation studies of "Feeling Free" or other such programming may benefit from including a comparison study of children who view the series and participate in follow-up discussions and children who view the series but do not discuss it.

Descriptive Attitude Measures

Although positive attitude change was detected on the attitude rating scales, this change was not apparent on the majority of the descriptive measures. This section reviews the results of the descriptive measures and discusses the relative merits of structured and unstructured attitude instruments.

Regarding children's definitions of disability labels, there was a significant increase in children's ability to label on only two out of the eight disability terms: "cerebral palsy" and "dyslexia." The terms "blind" and "deaf" showed little change due to most children knowing the definitions on the pretest. Although approximately one-quarter of the experimental group did learn the definition for "dwarf," this was also true of the comparison group. Perhaps the pretest itself is an incentive for children to learn the definition for "dwarf."

The terms "handicapped/disabled," "crippled," and "retarded," were difficult terms for the children to define. Many children did not respond on pre or posttests. Of those responses which were obtained, there was a large variety of definitions, most of which emphasized an inability to do things or stressed that something is wrong. The series did not seem to have much effect on these responses probably because the series did not deal with retardation and the words "handicapped," "disabled," and "crippled" were never clearly defined. In addition, although the meanings of the words cerebral palsy and dyslexia were discussed, the orientation of the series stressed people, personalities, and lifestyles rather than disability labels.

Regarding the Write a Story measure, there were no apparent differences in response changes between the experimental and comparison children's stories about handicapped people along dimensions of attitude, content, and theme. The descriptive story measure, as compared with the attitude rating scales, is a gross and qualitative measure of attitudes. This type of instrument is known to be less reliable than more quantifiable types of measures such as rating scales or sociometric measures. As discussed in the literature review, most studies which examine children's attitudes toward handicapped people rely on sociometric measures or picture projective tests. This study attempted to utilize an unstructured instrument to allow for children's spontaneous expressions of their feelings, perceptions, and reactions to handicapped people. The results were an amazing variety of creative stories about handicapped people. Some examples of their stories are presented in Appendix E. In addition, the story measure was successful in providing a means for children to reflect on their true experiences with handicapped people, as evidenced in the section on the effects of experience on attitudes (page 113). However, the subjective ratings of the stories according to negative, neutral, and positive attitudes were not able to detect differences between experimental and comparison groups' attitude changes.

These stories, as well as other unstructured instruments, warrant further analysis and investigation. Perhaps a story analysis similar to Billings' analysis (1963) on a scale of acceptance vs. rejection and worthy vs. devalued may be more sensitive in detecting attitude change. Billings reported the significant finding that noncrippled children held

negative attitudes toward their crippled peers. However, Billings compared stories about noncrippled children with stories about crippled children. This forced comparison is more likely to detect the more negative attitudes of children toward handicapped people as compared with nonhandicapped people than an examination of only the stories about crippled children. It is unclear whether the same rating technique would be able to detect changes within a group of stories about handicapped people.

The attitude rating scales used in the present study differ from the descriptive measures in that the scales are an organized structured measurement technique which present already defined alternatives with an assumed common meaning. On the other hand, the Write a Story instrument, and to a lesser extent the Definitions of Disability Labels instrument, are unstructured measurement techniques which require the subject to organize his responses and give meaning to the instrument through "spontaneous" responses. The failure of the Write a Story measure to detect attitude change may be due to the inability of some children to meet the demands of such an unstructured instrument--demands on language, thought processes, creativity, and writing ability.

However, structured attitude instruments also have their weaknesses. Yarrow (1960), in a comparison of structured and unstructured attitude techniques, cautions about the risks of structured measures which require a child to choose between alternative responses: "Research techniques of multiple-choice responses can force or create the form of the attitude by the items and alternatives presented and can impose a framework which, though not incorrect, is partly out of step with the child's reality" (p. 664).

One must consider the appropriateness of the attitude framework incorporated into all structured instruments assessing attitudes toward handicapped people: The most positive response is one in which the respondent perceives handicapped people as being not different from nonhandicapped people. It may be that as children (and adults) have more experience with handicapped people they increase their awareness of the great variability among handicapped people, thus acquiring a more realistic understanding of handicapped people. A less positive response on an attitude rating scale may, in certain instances, indicate a more realistic, and thus more desirable, attitude toward handicapped people. Instruments assessing attitudes toward handicapped people need to be examined to determine the extent to which a realistic understanding of handicapped people can be adequately assessed from the instrument design. In addition, an instrument which assesses a more realistic understanding of handicapped people may have different implications for behavioral interactions than an instrument which stresses the similarities of all handicapped and nonhandicapped people.

However, Yarrow (1960) also points out the advantages of structured approaches to explore systematically a range of attitude dimensions, to measure the amount of generalizability of the attitude, and to ascertain the limits of the attitude concept. The attitude rating scales used in the present study benefit from these strengths. The scales were able to measure attitudes toward handicapped people on a variety of dimensions, to indicate that the attitudes are generalizable, and to determine the boundaries of the attitude concept learned.

However, unstructured techniques such as the Write a Story measure are needed to supplement the more structured attitude techniques in order to provide a comprehensive understanding of children's attitudes toward handicapped people and changes which may occur in these attitudes. Such measures allow freedom from adult-imposed organization and allow children to freely express their ideas and opinions. Both unstructured and structured attitude techniques have possibilities and limitations, and both techniques are needed to provide information about attitudes and attitude change. Additional research using new rating techniques needs to be conducted to determine whether an unstructured instrument, such as the Write a Story measure, is sensitive enough to detect changes in children's attitudes toward handicapped people.

Conclusion

This thesis demonstrates that viewing the "Feeling Free" television series increases children's positive attitudes toward specific program content which portrays the specific abilities and lifestyles of a variety of handicapped people, and that changes in this attitude concept are generalizable to more general attitudes regarding handicapped people. In addition, differences in children's experiences with handicapped people and differences in types of classroom discussions following viewing of the series do not affect the impact of "Feeling Free."

The success of "Feeling Free" in promoting children's positive attitudes toward handicapped people is especially impressive when one considers the sample of children in this study. Many of the children had had years of experience with handicapped peers in their school. The attitudes of

these children were probably well-formulated and their patterns of interactions with handicapped classmates well-established. Yet even for these children "Feeling Free" provided them with information about disability and increased positive attitudes toward handicapped people.

However, more research is needed to confirm these findings and to provide us with a more comprehensive understanding of children's attitudes toward handicapped people and of the possibilities for attitude change. Such research might utilize a more complex experimental design in order to assess which student characteristics (e.g., age, I.Q., race, experience with handicapped people) are most likely to influence attitudes toward handicapped people and affect the potential for attitude change. Other viewing contexts should be incorporated into the design, such as children who view the series with and without classroom discussions. The evaluation of the series in both mainstreamed and nonmainstreamed contexts may provide more information on the effects of experience on children's reactions to the series.

New attitude measurement techniques need to be explored in order to provide us with a more comprehensive understanding of children's attitudes and of the possibilities for attitude change. New rating techniques applied to unstructured descriptive measures may be able to detect changes in children's attitudes toward handicapped people. However, the attitude rating scale used in this study provides us with a reliable alternative instrument to the sociometric instrument typically used for measuring children's attitudes toward handicapped people.

Another important area for investigation is the generalizability of this study's results to the 30-minute versions of "Feeling Free" presented to home viewers via the Public Broadcasting Station. Although some children in the present study did view "Feeling Free" at home, most children had seen only one or two programs, and thus the finding of no differences between those who viewed at home and those who did not (in both experimental and comparison groups) is inconclusive in determining the impact of "at home" viewing of the entire "Feeling Free" series.

Studies have been conducted on the differential effects of home viewing vs. classroom viewing and discussion. Some studies report that children who viewed "Sesame Street," "The Electric Company," or "Mulligan Stew," in a school context comprehended more of the television content than those who viewed the program in a home environment (Ball and Bogatz, 1970; 1973; Bogatz and Ball, 1971; Olien, Tichenor, and Donohue, 1975). However, Slaby and Quarforth (in press) note that a variety of aspects in the school environment may be affecting increased learning. They suggest that teachers or researchers who view with the children in school may influence the amount children learn from television "by guiding children's attention to the relevant aspects of the presentation, by helping them structure the stimuli, by providing opportunities for verbal labeling, rehearsal, and role-playing, or by providing children with the general encouragement, arousal, and motivation necessary for learning from television" (p. 59).

The 15-minute Instructional Television presentations used in this study differed in length, structure, and orientation from the 30-minute versions presented to home viewers via the Public Broadcasting Station.

An evaluation study including home viewers of "Feeling Free" might determine the generalizability of this study's results to at-home viewing of "Feeling Free," as well as provide some more information regarding the effects of different types of viewing contexts.

Finally, what can be said about the relationship between children's verbally expressed attitudes and their actual behavior? Will the more positive attitudes of the children who viewed "Feeling Free" result in behavioral change toward their handicapped peers?

After viewing "Feeling Free" children realized the capabilities, skills, and potentials of handicapped people. They realized that handicapped kids--their feelings, thoughts, and everyday activities--were not very different from other kids'. And they realized the potential of handicapped people as friends. Can we expect children, on the basis of these changes in their attitude concept of handicapped people, to positively alter their already established patterns of behavior with handicapped peers and/or approach interactions and friendships with newly mainstreamed peers in different and more positive ways?

Recent studies have demonstrated that under appropriate conditions attitudes can predict behavior (Reviews of this attitude--behavior literature include Fishbein and Ajzen, 1972; Calder and Ross, 1973; and Kelman, 1974).

Regan and Fazio (1977) showed that attitudes were most related with behavior when the subject had direct behavioral interaction with the attitude object. Fazio and Zanna (1976) demonstrated that there was a correspondence between attitude and behavioral interaction for those

subjects who had an opportunity to review and evaluate their previous behaviors in relationship to an attitude object compared with those subjects who did not have such an opportunity.

Children in this study viewed "Feeling Free" in a mainstreamed context. They had opportunities to act out their newly acquired attitudes and determine the benefits of new ways of interacting. Opportunities for modelling the interactions presented on the series may increase the chances of the effectiveness of "Feeling Free" for producing reliable increases in children's positive attitudes toward handicapped people, thus resulting in more positive behavioral interactions with their handicapped peers. However, research is needed to determine if the success of "Feeling Free" is generalizable to children's behavioral interactions with their handicapped peers.

In sum, the results of this study indicate that the "Feeling Free" television series is a vehicle for promoting children's awareness, understanding, and acceptance of handicapped people. "Feeling Free" provided children with information they had not yet acquired in their experiences with handicapped people. "Feeling Free" was a medium through which they were able to observe a variety of handicapped people involved in different activities, coping with their feelings of being handicapped, modelling an openness in talking about disability, and engaged in friendships. Furthermore, past research on the relationship between attitudes and behavior indicates the potential of "Feeling Free" for affecting both attitudinal and behavioral change.

Thus, this research suggests that the television medium can be used successfully to enhance older elementary school children's positive attitudes toward handicapped people. This research constitutes one of the few studies designed to assess the effects of prosocial television on children older than preschoolers and suggests the potential of television programming to increase prosocial attitudes of older elementary school children. Quality programming for this television audience deserves further consideration.

In conclusion, the successful integration of handicapped children in our school systems, socially as well as academically, can only be achieved with the preparation and cooperation of all concerned, especially the students themselves. This study demonstrates that "Feeling Free" is a step in facilitating this preparation and cooperation and that the television medium has the potential to promote positive attitudes between handicapped and nonhandicapped children.

APPENDIX A

"FEELING FREE" REPORT

FEELING FREE

NIELSEN NATIONAL AUDIENCE REPORTS

The charts on the next four pages summarize data on national viewing of FEELING FREE supplied to PBS by A.C. Nielsen. PBS officials in both the programming and audience research departments consider these results to be outstanding for a public television series, particularly for a new offering which received no paid promotion.

In order to establish a yardstick for FEELING FREE'S success, ratings are presented in comparison with ZOOM and The Electric Company, both firmly established and widely praised PBS programs with a target audience similar to FEELING FREE.

The charts reflect these Nielsen findings:

1. FEELING FREE was viewed by half again as many households to which the program was available[1] as was ZOOM, and by 25% more households than was The Electric Company.

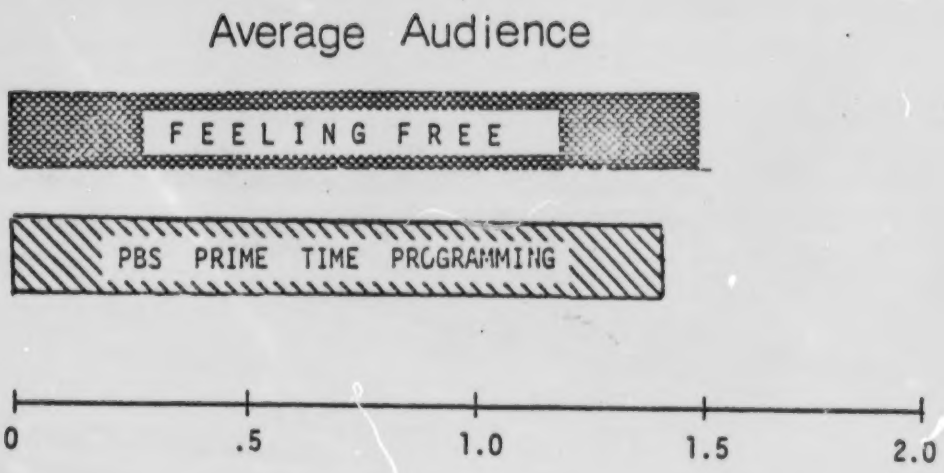
2. Average audience ratings based on all U.S. households using television indicate that almost twice as many homes viewed FEELING FREE as those viewing a comparable portion of ZOOM; on the same basis, FEELING FREE viewing was 25% higher than The Electric Company. A similar pattern emerges using total audience data.

3. More households viewed FEELING FREE than those viewing an average minute of the PBS prime time schedule - even though FEELING FREE was shown prior to prime time in most areas (at 6:00 pm or earlier).

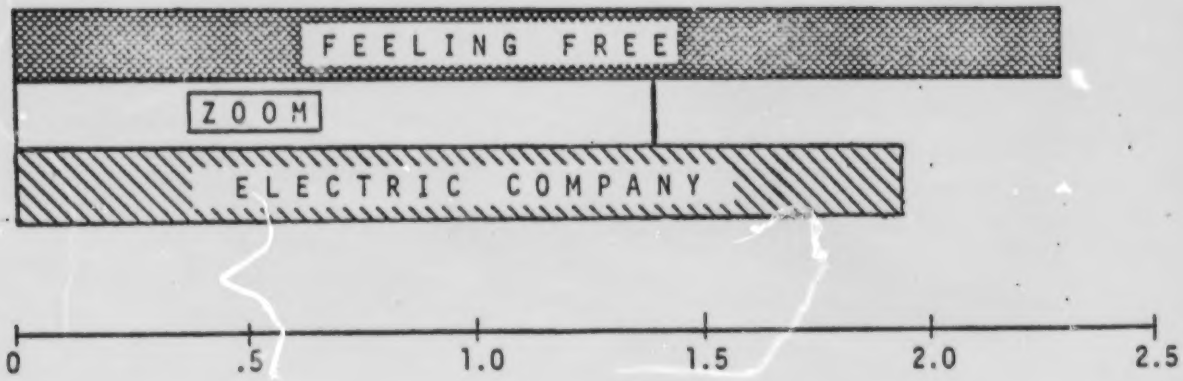
4. FEELING FREE attracted a broad-based audience, with wide appeal across demographic categories including education, occupation, and income. Most PBS programs appeal disproportionately to families in the upper echelons on each of these dimensions.

[1] FEELING FREE was broadcast by 209 public television stations, over 80% of the PBS system. It achieved the highest system carriage of any new series in the April station survey.

AUDIENCE APPEAL IN THE PBS SCHEDULE



ADJUSTED TOTAL AUDIENCE

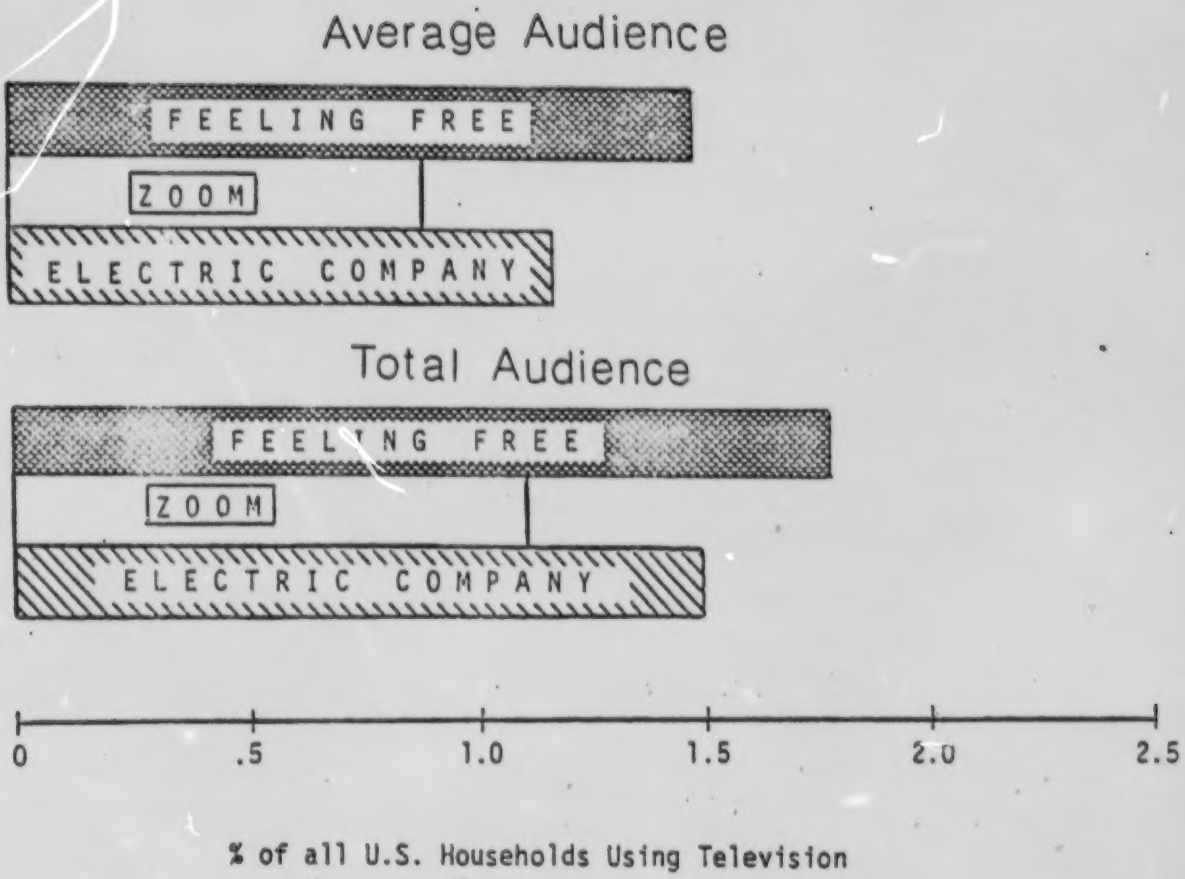


% viewing among households to which each program was available[1]

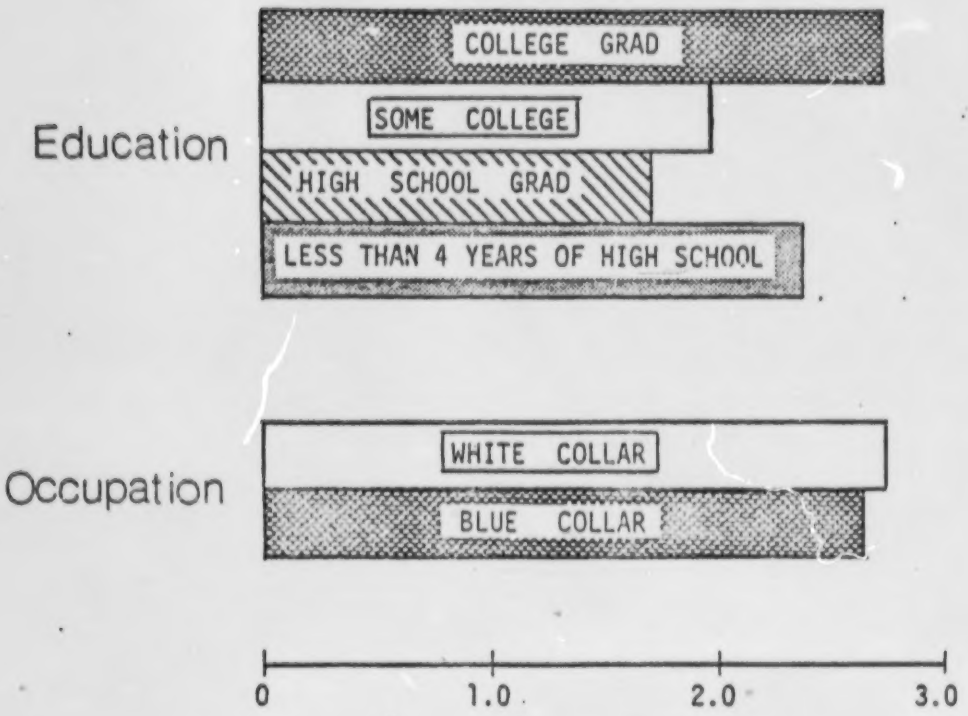
[1] Based on PBS station carriage and national signal penetration

Source for all charts: A.C. Nielsen National Audience Reports for April 24-30, 1978, via PBS. All data based on Monday-Friday audience only.

AUDIENCE RATING



DEMOGRAPHIC COMPOSITION OF THE FEELING FREE AUDIENCE



% viewing FEELING FREE of all U.S. Households Using Television in each category

APPENDIX B

CHILDREN'S ATTITUDES TOWARD HANDICAPPED PEOPLE QUESTIONNAIRE*

PHASE I

*The size of the questionnaire was reduced in order to satisfy margin requirements for binding.

Name _____

Age _____

Teacher's Name _____

Please write a story about a child who is handicapped.

Describe a person who

is handicapped _____

_____

is disabled _____

_____

is blind _____

_____

is deaf _____

_____

is a dwarf _____

_____

is retarded _____

_____

uses crutches _____

_____

_____ is in a wheelchair _____

_____

What does cerebral palsy mean?

_____

_____

What does dyslexia mean?

_____

_____

Do you know someone who is blind?

No ☐

Yes, very well. ☐ name _____

Yes, a little. ☐

just seen ☐
TV
books
other

Do you know someone who is deaf?

No ☐

Yes, very well. ☐ name _____

Yes, a little. ☐

just seen ☐
TV
books
other

Do you know someone who is a dwarf?

No ☐

Yes, very well. ☐ name _____

Yes, a little. ☐

just seen ☐
TV
books
other

Do you know someone who is retarded?

No ☐

Yes, very well. ☐ name _____

Yes, a little. ☐

just seen ☐
TV
books
other

Do you know someone who uses crutches?

No ☐

Yes, very well. name _____ ☐

Yes, a little. ☐

just seen ☐
TV
books
other

Do you know someone who uses a wheelchair?

No ☐

Yes, very well. name _____ ☐

Yes, a little. ☐

just seen ☐
TV
books
other

Do you know someone who has lots of problems reading and spelling?

No ☐

Yes, very well. name _____ ☐

Yes, a little. ☐

just seen ☐
TV
books
other

Do you know someone who has another kind of disability?

No ☐

Yes, very well. name _____ ☐

Yes, a little. ☐

just seen ☐
TV
books
other

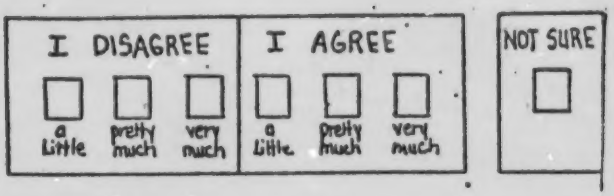
Name _____

Age _____

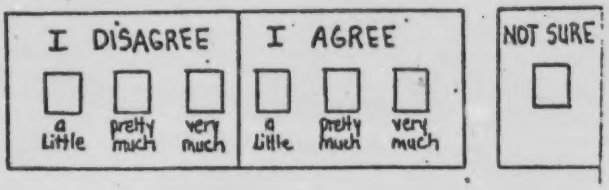
Teacher's Name _____

PART I

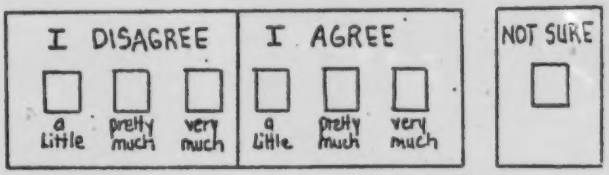
(1) A handicapped person can have a job.



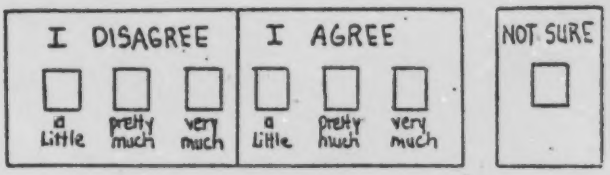
(2) Handicapped children should be in separate classrooms by themselves.



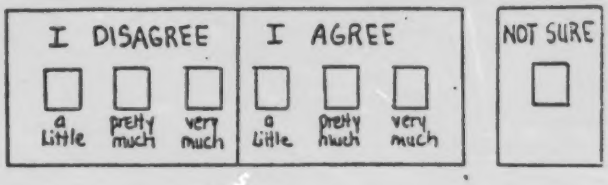
(3) A handicapped person can get married and have a family.



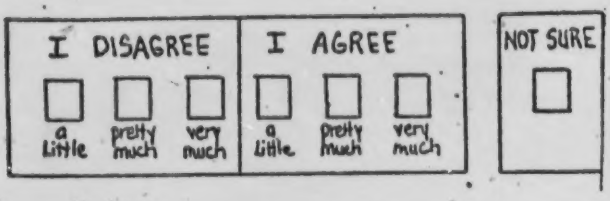
(4) Handicapped people are just as confident as other people.



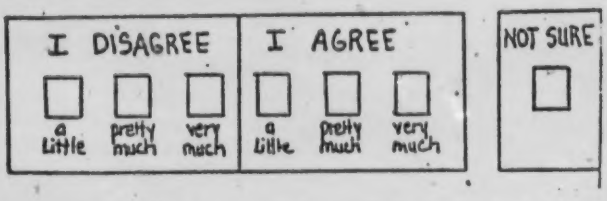
(5) A handicapped person is sad most of the time.



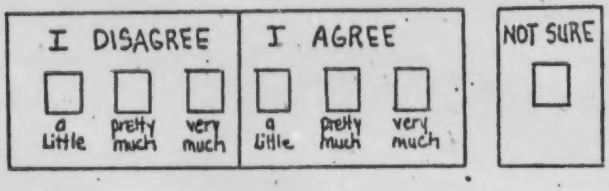
(6) You can catch a handicap like you can catch a cold.



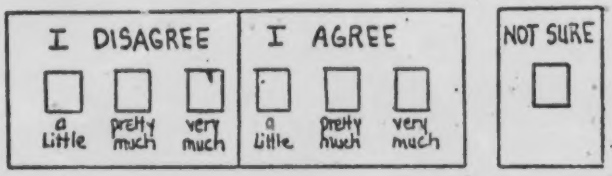
(7) You have to be careful of what you say when you are with handicapped people.



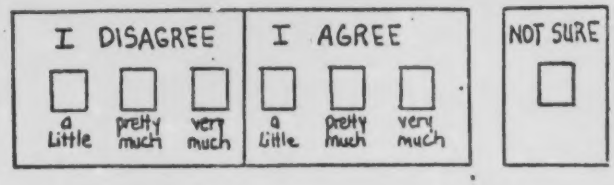
(8) Handicapped children are not as much fun to play with as other children.



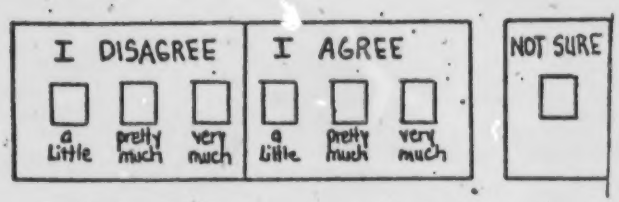
(9) A handicapped person can have as much fun as anyone else.



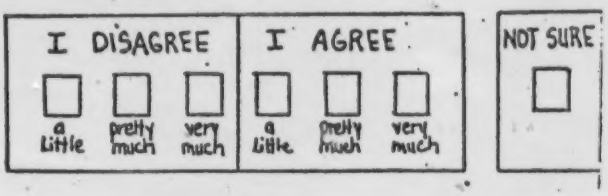
(10) Most handicapped people feel sorry for themselves.



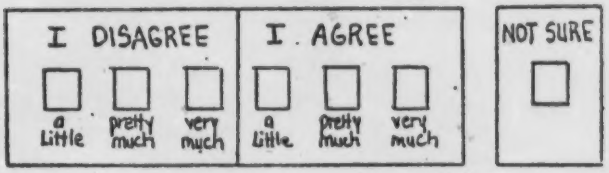
(11) Most handicapped people are not scared to be alone.



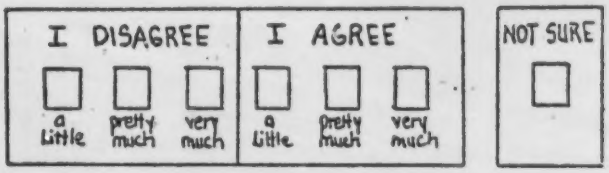
(12) What handicapped people do everyday is very different from what other people do.



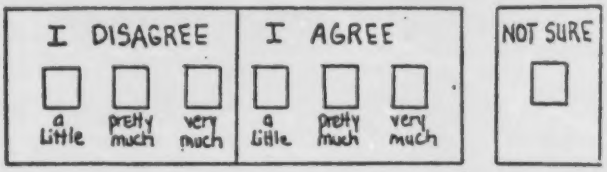
(13) Handicapped people should be treated just like we treat everybody else.



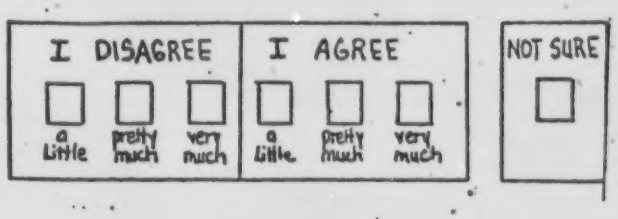
(14) It is OK to ask questions of someone who is handicapped.



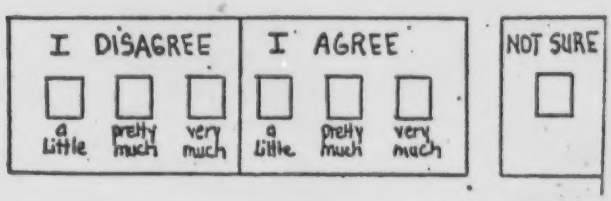
(15) Handicapped people are usually unfriendly.



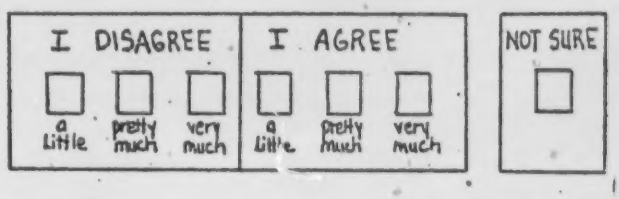
(16) A handicapped person could be my friend.



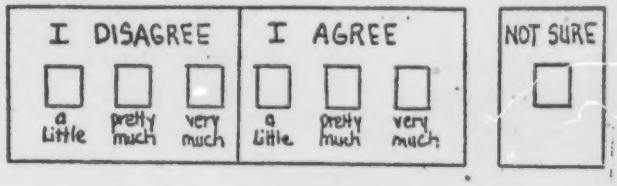
(17) Handicapped people are harder to get along with than other people.



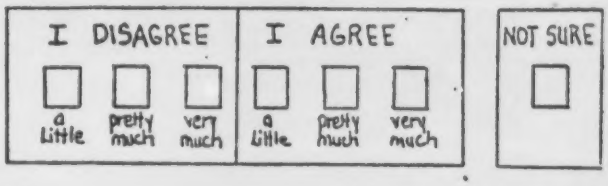
(18) Handicapped people often act very different than other people.



(19) A handicapped child has as many friends as anyone else.

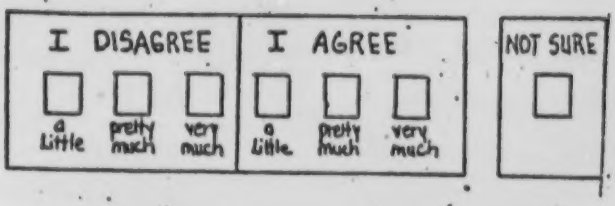


(20) Handicapped people usually have more illness than other people.

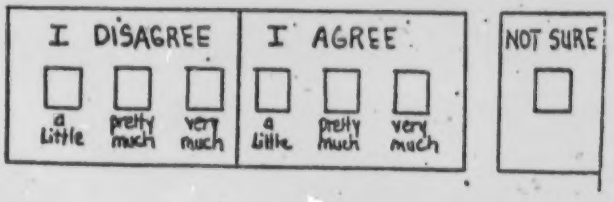


PART II

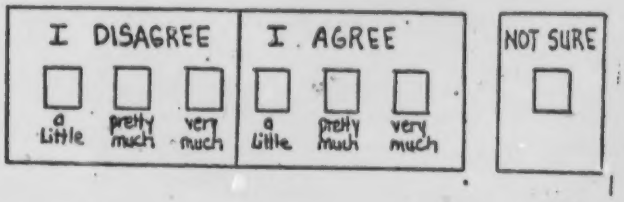
(1) A blind person can get married.



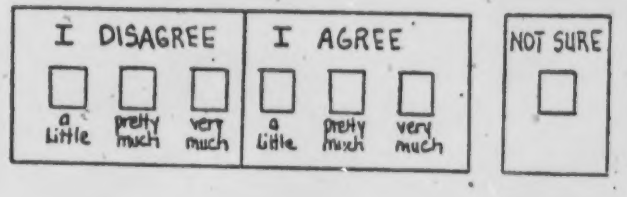
(2) A person in a wheelchair can help other people.



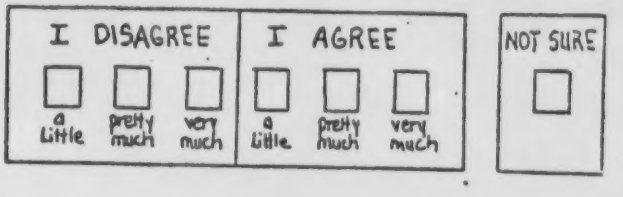
(3) A deaf boy doesn't have many friends.



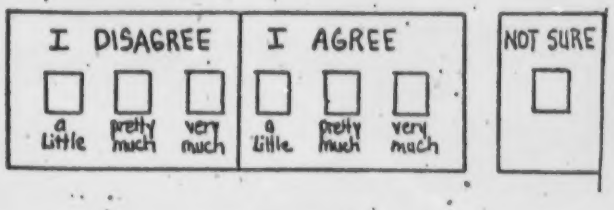
(4) A boy who has problems reading and spelling can be a good rockclimber.



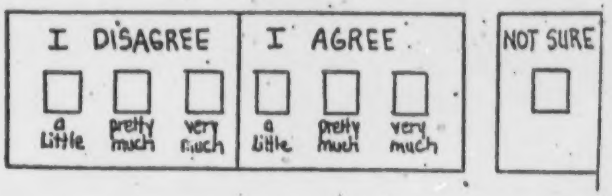
(5) A person in a wheelchair can't have a job working with computers.



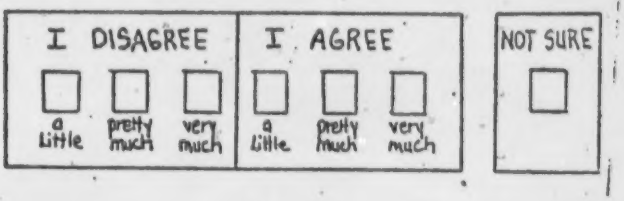
(6) A girl who is blind can't play hide and seek.



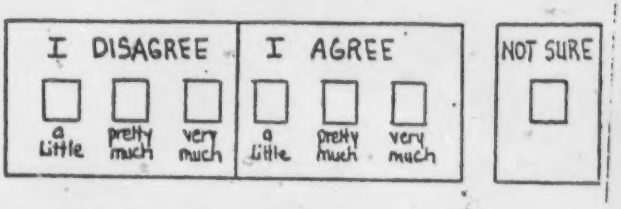
(7) A deaf boy can play frisbee.



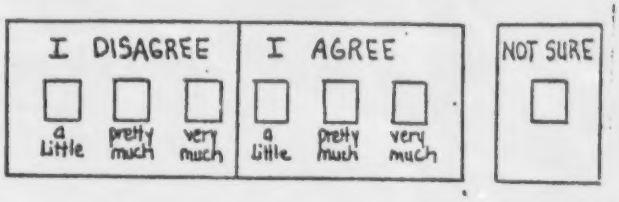
(8) A deaf person can't communicate with other people.



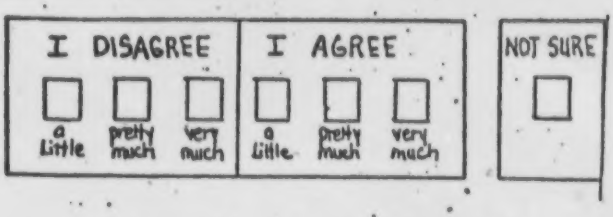
(9) A boy who has problems reading and spelling can't skateboard very well.



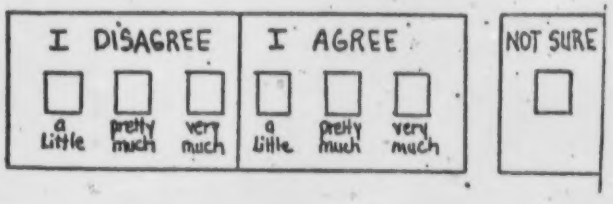
(10) A blind person doesn't need to give directions to a seeing-eye dog.



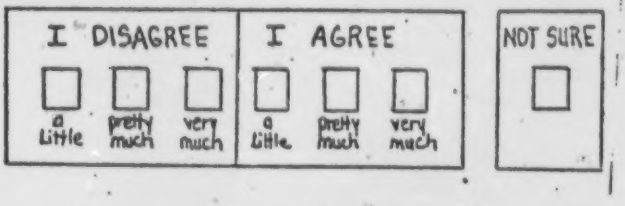
(11) A person who uses crutches can ride the subway on his own.



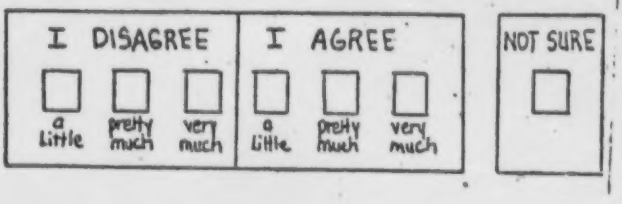
(12) A person who uses a wheelchair can drive a car.



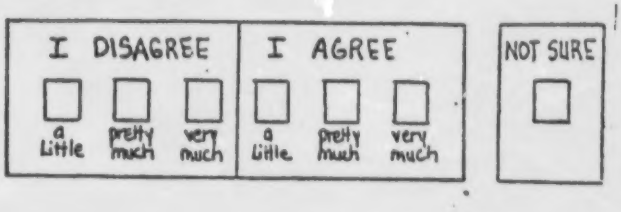
(13) A person who uses crutches can't cook dinner.



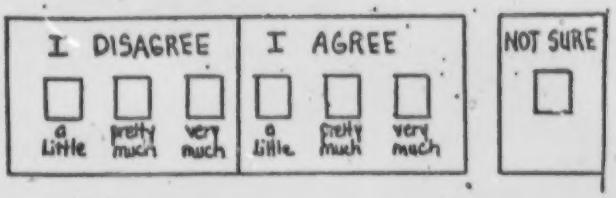
(14) A boy who has problems reading and spelling can't play games like other children.



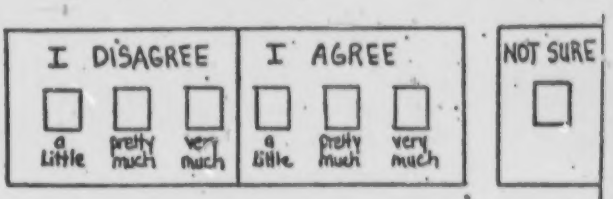
(15) A person who uses crutches usually needs help.



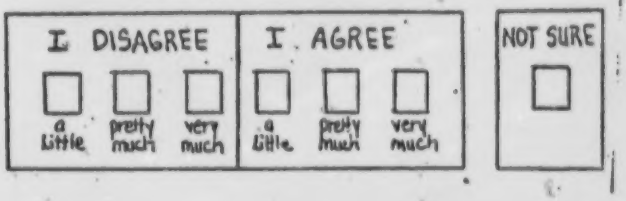
(16) A blind person can go to graduate school.



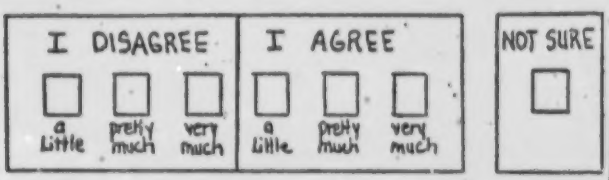
(17) A blind person can be a school teacher.



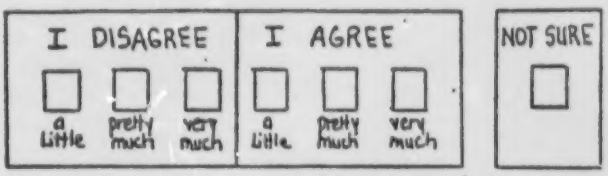
(18) A dwarf can have fun at a school dance.



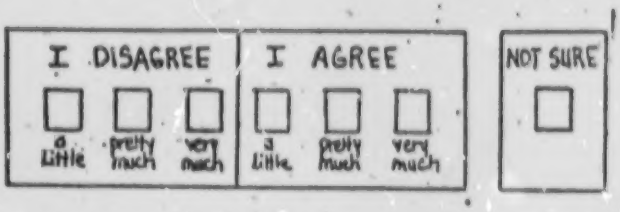
(19) A girl who is blind can't get along in a regular school.



(20) A dwarf doesn't like answering questions about her handicap.



(21) A dwarf can teach pottery.



APPENDIX B
(continued)

CHILDREN'S ATTITUDES TOWARD HANDICAPPED PEOPLE QUESTIONNAIRE

PHASE II

POST

Name _____

Age _____

Teacher's Name _____

Please write a story about a child who is handicapped. This can be a true story or a make-believe story.

Is your story ...

☐ true?

☐ make-believe?

Describe what these words mean:

handicapped (disabled)_____

_____

blind _____

_____

deaf _____

_____

dwarf_____

_____

retarded _____

_____

crippled (uses crutches or a wheelchair)_____

_____

cerebral palsy _____

_____

dyslexia _____

_____

Is there someone in your family who is handicapped? ☐ NO ☐ YES

If you checked ☒ YES answer these questions:

What is the handicap...?

blind? ☐
deaf? ☐
dwarf? ☐
retarded? ☐
crippled? ☐
dyslexia? ☐

another type of handicap? ☐
(what is it? _____)

Do you like this person?

☐ not at all ☐ a little ☐ a lot

★ If there is more than one person in your family who is handicapped put numbers in the ☐s. ★

Do you <u>know</u> or <u>play with</u> someone who is handicapped?

☐ NO ☐ YES

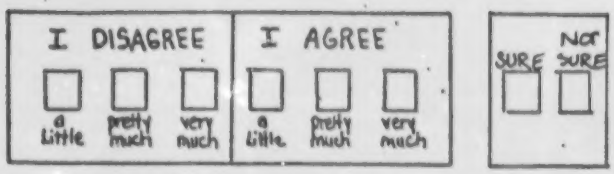
If you checked [X] YES answer these questions:

What is the handicap?	Do you like this person?		
blind? ☐	☐ not at all	☐ a little	☐ a lot
deaf? ☐	☐ not at all	☐ a little	☐ a lot
dwarf? ☐	☐ not at all	☐ a little	☐ a lot
retarded? ☐	☐ not at all	☐ a little	☐ a lot
crippled? ☐	☐ not at all	☐ a little	☐ a lot
dyslexia? ☐	☐ not at all	☐ a little	☐ a lot
another type of handicap? ☐ (what is it? _____)	☐ not at all	☐ a little	☐ a lot

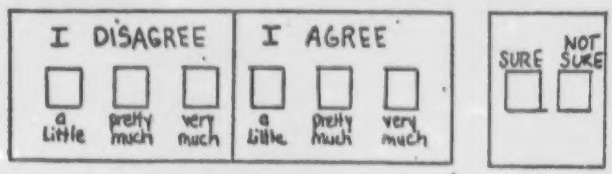
★ If there is more than one person who you <u>know</u> or <u>play with</u> who is handicapped put numbers in the ☐s. ★

PART I

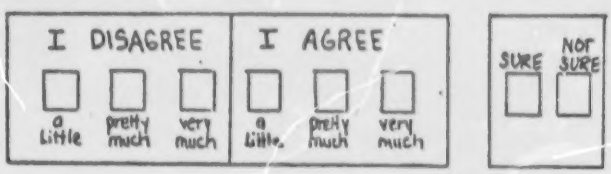
(1) A handicapped person can have a job.



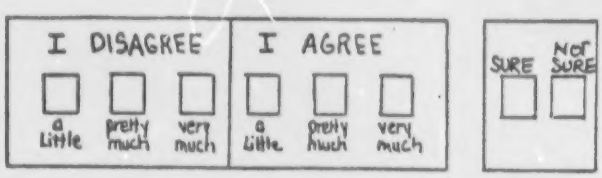
(2) Handicapped children should be in separate classrooms by themselves.



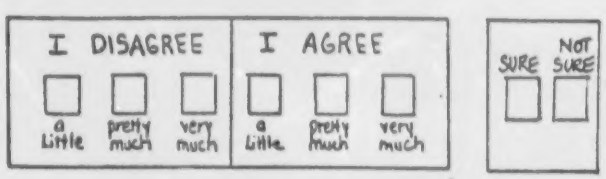
(3) A handicapped person can get married and have a family.



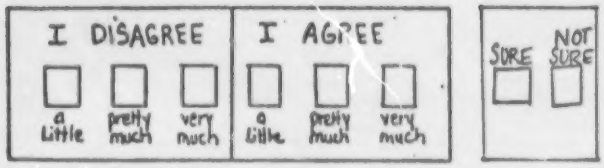
(4) A handicapped person is sad most of the time.



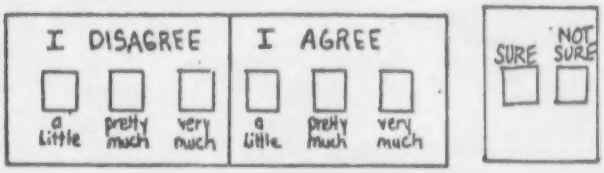
(5) You can catch a handicap like you can catch a cold.



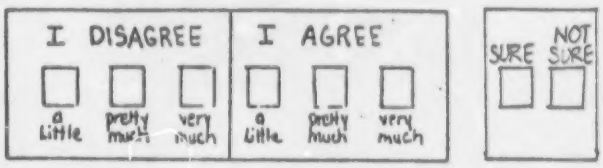
(6) You have to be careful of what you say when you are with handicapped people.



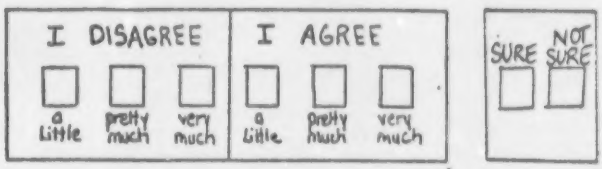
(7) Handicapped children are not as much fun to play with as other children.



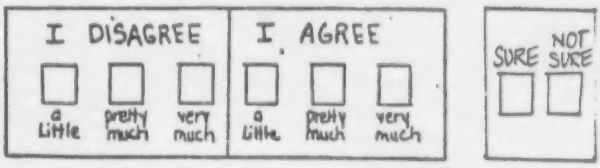
(8) A handicapped person can have as much fun as anyone else.



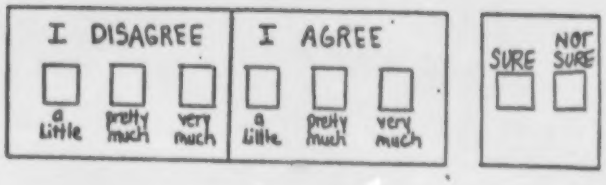
(9) Most handicapped people feel sorry for themselves.



(10) What handicapped people do everyday is very different from what other people do.

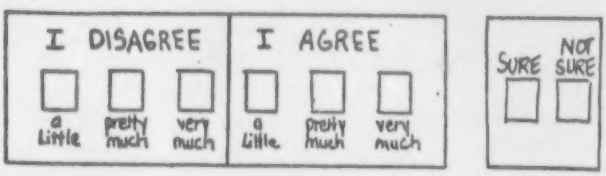


(11) It is OK to ask questions of someone who is handicapped.

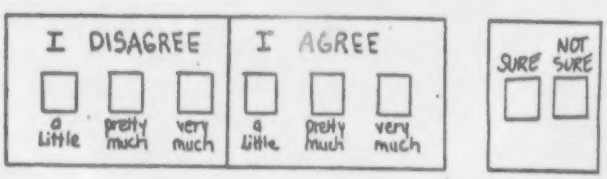


(12) Handicapped people are usually unfriendly.

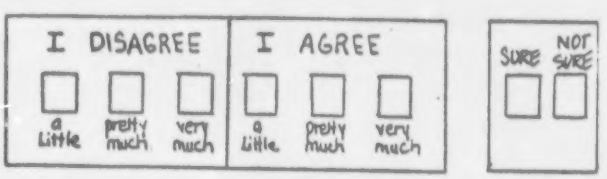
(13) A handicapped person could be my friend.



(14) Handicapped people often act very different than other people.

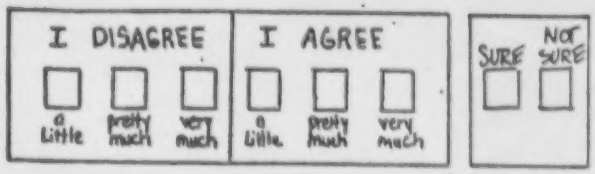


(15) A handicapped child has as many friends as anyone else.

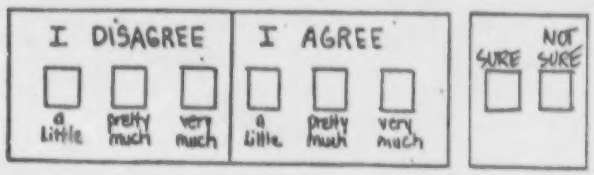


PART II

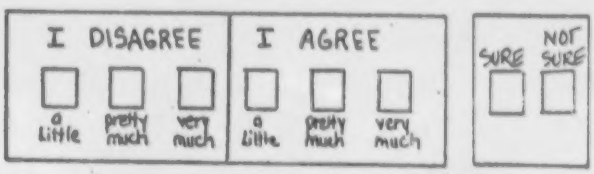
(1) A blind person can get married.



(2) A person in a wheelchair can help other people.

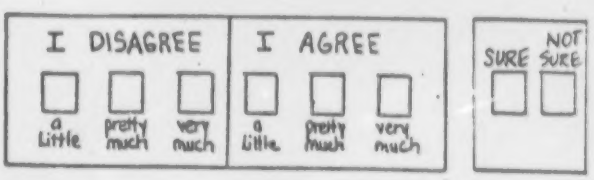


(3) A deaf boy doesn't have many friends.

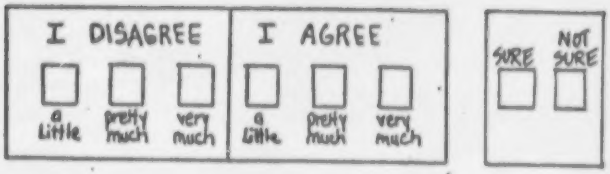


(4) A boy who has problems reading and spelling can be a good rockclimber.

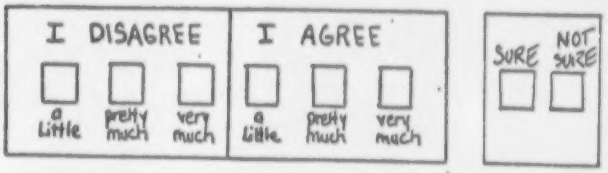
(5) A girl who is blind can't play hide and seek.



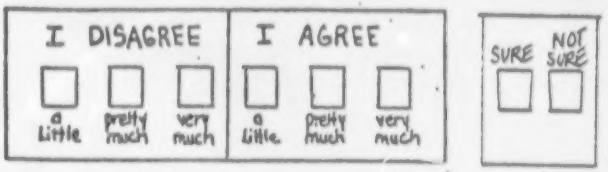
(6) A deaf person can't communicate with other people.



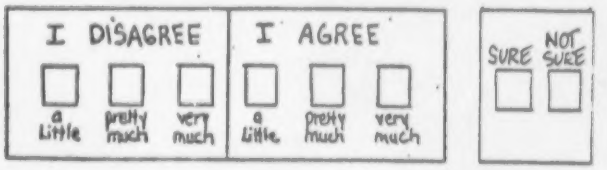
(7) A boy who has problems reading and spelling can't skateboard very well.



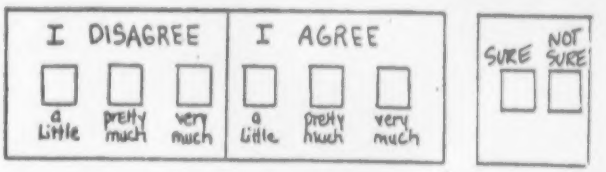
(8) A person who uses crutches can ride the subway on his own.



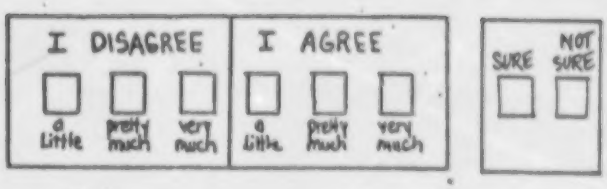
(9) A person who uses a wheelchair can drive a car.



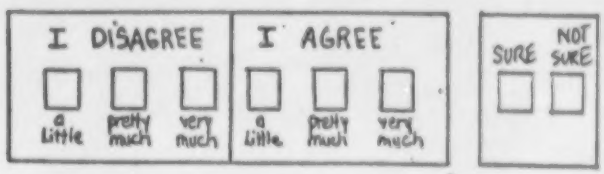
(10) A person who uses crutches usually needs help.



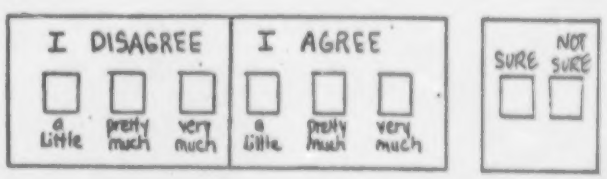
(11) A blind person can go to college.



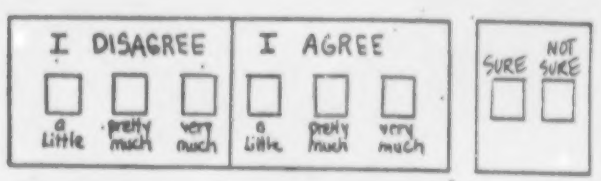
(12) A blind person can be a school teacher.



(13) A dwarf can have fun at a school dance.



(14) A dwarf can teach pottery.



Have you seen the TV show called FEELING FREE <u>at home</u>?

NO YES

APPENDIX C

GROUP DISCUSSION RATING SCALE

PROGRAM: DATE: RATER:

TEACHER: DATE:

SCHOOL:

ORIENTATION

Appropriateness Mood Overall	FEELING FREE	PERSONAL D	PERSONAL ND	ANECDOTAL D	ANECDOTAL ND	DISABILITY GENERAL	THEME GENERAL	IRRELEVANT
10 minutes A 1 2 3 4 5								
10 minutes M 1 2 3 4 5								
10 minutes O 1 2 3 4 5								
10 minutes A 1 2 3 4 5								
10 minutes M 1 2 3 4 5								
10 minutes O 1 2 3 4 5								
10 minutes A 1 2 3 4 5								
10 minutes M 1 2 3 4 5								
10 minutes O 1 2 3 4 5								
TOTAL A 1 2 3 4 5								
TOTAL M 1 2 3 4 5								
TOTAL O 1 2 3 4 5								

PROGRAM: DATE: RATER:
TEACHER: DATE:
SCHOOL:

CONTENT

	7 Friendship	8 Competence	9 Helping	10 Teasing	11 Adjusting	12 Exper. Disab	13 Questions	14 Growing Up	NA
10 minutes	1–5								
10 minutes	6–10								
10 minutes	11–15								
10 minutes	16–20								
	21–35								
TOTAL	36–40								

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APPENDIX D

DESCRIPTIVE DATA

DESCRIPTIVE DATA

The descriptive data from the Write a Story measure, the Definitions of Disability Labels, and the Familiarity Index are described below.

Write a Story: Person Perception Measure

Frequency distributions of pre and posttest responses to the story measure were examined to determine response changes from pre to post and differencesin these changes between experimental and comparison groups. Chi-Squares were computed for those items which indicated substantial differences.

Sample

There were 17 children, 13 from the experimental group and 4 from the comparison group, who were missing a pre or posttest story due to either (1) administration of this measure separately from the attitude items during Phase I; or (2) children who refused to write a story on the pre or post-test. Thus the total N for the analyses of the story measure is 186; 116 in the experimental group and 70 in the comparison group.

The following dimensions on the story measure were examined: (1) Attitude portrayed; (2) Type of story: "make-believe" or "true;" (3) Disabled person featured in the story: "disabled schoolmate" or "other;" (4) Length of story; (5) Content of story; (6) Theme of story; (7) Disability featured in story.

(1) Attitude Portrayed

The stories were examined to determine the distribution of neutral, negative, and positive attitudes portrayed in the stories, changes in this distribution from pre to post, and differences in these changes between experimental and comparison groups.

The experimental and comparison groups did not differ significantly on the types of attitudes portrayed in their pretest story. However, the experimental group did have slightly more positive attitudes than neutral or negative ones, whereas the comparison group had approximately an equal number of positive and neutral responses and slightly fewer negative responses.

On the posttest stories, approximately half the subjects in both experimental and comparison groups changed their attitude portrayed in the story. The experimental group increased in positive attitudes as well as neutral attitudes, and decreased in negative attitudes. On the other hand, the comparison group did not change in the number of positive responses; however, there was an increase in the number of neutral attitudes and a decrease in negative attitudes. The results are presented in Table 1. The posttest frequency distributions and the overall pattern of change did not differ significantly between the experimental and the comparison group. However, the experimental group did increase in the number of positive attitudes to a slightly greater extent than the comparison group.

(2) Type of Story: "Make-believe" or "True"

The experimental and comparison groups differed significantly on the type of story, make-believe or true, that they wrote on the pretest. The experimental group wrote slightly more make-believe stories than true stories, whereas the comparison group wrote twice as many true stories

Table 1

Story Measure: Attitude Portrayed

	PRETEST					POSTTEST			
	Neut	Neg	Pos	Total		Neut	Neg	Pos	Total
Expt	28 (24%)	33 (28%)	55 (47%)	116	Expt	38 (33%)	19 (16%)	59 (51%)	116
Comp	27 (39%)	17 (24%)	26 (37%)	70	Comp	34 (49%)	10 (14%)	26 (37%)	70

Change Scores

	Neg→ Pos	Pos→ Neg	Neut→ Pos	Pos→ Neut	Neg→ Neut	Neut→ Neg	NoΔ Neut	NoΔ Neg	NoΔ Pos	Total
Expt	12 (10%)	4 (3%)	11 (10%)	15 (13%)	10 (9%)	4 (3%)	13 (11%)	11 (9%)	36 (31%)	116
Comp	3 (4%)	2 (3%)	8 (11%)	9 (13%)	8 (11%)	2 (3%)	17 (24%)	6 (9%)	15 (21%)	70

than make-believe stories. On the posttest stories, slightly more than one-quarter in both groups changed their story from make-believe to true or true to make-believe. Both experimental and comparison groups increased in make-believe stories. However, the groups remained significantly different on the posttest: The experimental group wrote twice as many make-believe stories as true stories whereas the comparison group wrote only slightly more true stories than make-believe ones.

However, whereas one-half of the experimental subjects did not change in their make-believe response, and one-quarter did not change in their true response, the exact opposite was true for the comparison group: One-half did not change in their true response and one-quarter did not change in their make-believe response. The overall pattern of change differed significantly between the experimental and comparison groups ($X^2(3)=7.83$, $p<.05$). The results are presented in Table 2.

(3) Disabled Person Featured in the Story: "Disabled schoolmate" or "Other"

On pre and posttests for both experimental and comparison groups, most children did not write stories about the handicapped student(s) in their classroom or school. On the posttest, the experimental group decreased in the number of stories about a disabled schoolmate (22% to 11%) whereas the comparison group increased (17% to 29%).

A change score analysis indicates that more subjects in the comparison group changed their story on this variable than in the experimental group (29% vs. 18%). In addition, 15% of the experimental subjects and 9% of the comparison subjects who wrote about disabled schoolmates on the pretest did not continue to write about them on the posttest. And, whereas only 3% of the experimental subjects who did not write about the disabled schoolmate on the pretest wrote about him on the posttest, this was true for 20% of the comparison subjects. The difference in the distribution of change scores between experimental and comparison groups was significant ($X^2(4) = 18.31$, $p<.01$). The results are presented in Table 3.

Table 2

Story Measure: "Make-believe" or "True"

	PRETEST				POSTTEST		
	Make-Believe	True	Total		Make-Believe	True	Total
Expt	56 (54%)	47 (46%)	103*	Expt	66 (64%)	37 (36%)	103*
Comp	24 (37%)	41 (63%)	65*	Comp	29 (45%)	36 (55%)	65*

*Ten subjects (9%) in the experimental group and 4 subjects (6%) in the comparison group did not identify their story as "true" or "make-believe" on the pre or posttest.

Change Scores

	Make-believe→ True	True→ Make-believe	NoΔ Make-believe	NoΔ True	Total
Expt	10 (10%)	20 (19%)	46 (45%)	27 (26%)	103
Comp	6 (9%)	11 (17%)	18 (28%)	30 (46%)	65

Table 3

Story Measure: "Disabled-schoolmate" or "Other"

	PRETEST					POSTTEST			
	Other	Disab School-mate	Auto-bio-graphy	Total		Other	Disab School-mate	Auto-bio-graphy	Total
Expt	90 (78%)	26 (22%)	-0-	116	Expt	103 (89%)	13 (11%)	-0-	116
Comp	56 (80%)	12 (17%)	2 (3%)	70	Comp	48 (69%)	20 (29%)	2 (3%)	70

Change Scores

Other→ Disab Schoolmate	4 (3%)	14 (20%)
Disab Schoolmate→ Other	17 (15%)	6 (9%)
No Δ Disab Schoolmate	9 (8%)	6 (9%)
No Δ Other	86 (74%)	42 (60%)
Autobiographical	-0- --	2 (3%)
Total	116	70

(4) Length of Story

On pre and posttests, most subjects in both experimental and comparison groups wrote stories between 21 and 60 words. The groups were not significantly different on the distribution of their pre or posttest story lengths.

A change score analysis indicates that almost half of the experimental subjects and over half of the comparison subjects wrote shorter stories on the posttest. However, more subjects in the experimental group wrote longer posttest stories than in the comparison group (14% vs. 9%). The difference in the discribution of change scores between the groups was not significant. The results are presented in Table 4.

(5) Content of Story

The different types of content on the stories were distributed among eight categories. In both experimental and comparison groups for pre and posttests, approximately 81% included some "description" in their story, less than 20% wrote stories about "accidents" or "cause of handicap," approximately 5% wrote about "miracle healers" and only 1 to 3% wrote about "disabled as hero" or wrote "fairy tales." The only categories which showed changes from pre to post were "having fun" and "success." On the pretest approximately 10% of both groups wrote about these categories. However, on the posttest, whereas approximately 10% in the comparison group continued to include this content, there was an increase for the experimental group (expt: "having fun"--10% to 21% and "success"--9% to 13%). However, the difference between

Table 4

Story Measure: Length

	PRETEST					
	≤20	≤40	≤60	≤80	>80	Total
Expt	5 (4%)	38 (33%)	36 (31%)	24 (21%)	13 (11%)	116
Comp	8 (11%)	23 (33%)	16 (23%)	9 (13%)	14 (20%)	70

	POSTTEST					
	≤20	≤40	≤60	≤80	>80	Total
Expt	17 (15%)	42 (36%)	31 (27%)	19 (16%)	7 (6%)	116
Comp	17 (24%)	28 (40%)	15 (21%)	6 (9%)	4 (6%)	70

Change Scores

	Expt	Comp	Total
Increased	16 (14%)	6 (9%)	22
No Change	51 (44%)	27 (39%)	78
Decreased	49 (42%)	37 (53%)	86
Total	116	70	186

experimental and comparison group's pretest and posttest content was not significant. The results are presented in Table 5.

Table 5

Story Measure: Content* **

	Description	Accident	Cause	Miracle Healers	Disab As Hero	Fairy Tale	Having Fun	Success
PRETEST								
Expt (n=116)	90 (78%)	22 (19%)	21 (18%)	6 (5%)	2 (2%)	1 (1%)	12 (10%)	10 (9%)
Comp (n=70)	55 (79%)	12 (17%)	11 (16%)	4 (6%)	2 (3%)	1 (1%)	8 (11%)	8 (11%)
POSTTEST								
Expt (n=116)	92 (79%)	17 (15%)	18 (16%)	3 (3%)	2 (2%)	-0- -0-	24 (21%)	15 (13%)
Comp (n=70)	60 (86%)	9 (13%)	7 (10%)	4 (6%)	1 (1%)	-0- -0-	6 (9%)	8 (11%)

*A child's story could contain more than one content category.

** % is number of responses in this category divided by total number of subjects.

(6) Theme of Story

The stories were coded according to the eight themes presented in the teacher's guide. All the themes were included in the children's stories. However, approximately a quarter of the children in both experimental and comparison groups on pre and posttests did not include a predominent theme in their story.

The most frequently included themes for both groups on pre and posttest were: "Ability," "Experiencing disability," "Friendship," and "Adjusting." The distribution of the themes for the two groups was relatively similar on pre and posttests. The only exception was a decrease in the "Adjusting" theme for the comparison group. Otherwise the two groups seem substantially similar: On the pretest, for both groups, the most often included theme was "Ability." On the posttest, for both groups, there was a decrease in "Ability" themes but an increase in "Friendship" themes. The results are presented in Table 6.

Table 6

Story Measure: Theme* **

	No Theme	Ability	Exper Disab	Friend-ship	Adjust-ing	Helping	Teasing	Ask Ques	Growing Up
PRETEST									
Expt (n=116)	23 (20%)	45 (39%)	28 (24%)	26 (22%)	24 (21%)	8 (7%)	11 (10%)	4 (3%)	4 (3%)
Comp (n=70)	21 (30%)	20 (29%)	10 (14%)	13 (19%)	15 (21%)	3 (4%)	6 (9%)	-0- -0-	2 (3%)
POSTTEST									
Expt (n=116)	26 (22%)	35 (30%)	20 (17%)	37 (32%)	24 (21%)	15 (13%)	12 (10%)	3 (3%)	3 (3%)
Comp (n=70)	22 (31%)	16 (23%)	8 (11%)	18 (26%)	5 (7%)	5 (7%)	8 (11%)	-0- -0-	-0- -0-

*A child's story could contain more than one theme category.

** % is number of responses in this category divided by total number of subjects.

(7) Disability Type Featured in Story

The most frequently chosen disability by the experimental group on the pretest was "crippled" (42%), and the next three most frequently chosen disabilities were "handicapped," "retarded," and "blind" (each approximately 13% of the responses). On the other hand, the most frequently chosen disability by the comparison group on the pretest was "deaf" (30%). And the next two frequently chosen disabilities were "blind" and "crippled" (each approximately 25% of the responses). On the posttest, the most frequently chosen disabilities remain approximately the same, with the exception of "blind" which decreased in frequency in the comparison group (<16%).

The experimental and comparison groups did not differ significantly in their overall distribution of disabilities featured in the story on pre or posttests. The only notable difference was that the experimental group chose "blind" more frequently on the post than the pre (>16%) whereas the comparison group chose "blind" less frequently (<16%). The results are presented in Table 7.

Conclusion of Write a Story: Person Perception Measure:

A comparison of experimental and comparison group frequency distributions of pre and posttest responses to the story measure indicates that generally there is little change in these responses from pre to posttests for either group. When slight changes occur the distribution of change is similar for both groups. The only exceptions are:

Table 7

Story Measure: Disability Type* **

	Crippled	Hand	Retarded	Blind	Deaf	Dwarf	Can't Spell/ Read	Misc
PRETEST								
Expt (n=116)	49 (42%)	16 (14%)	16 (14%)	14 (12%)	10 (9%)	2 (2%)	4 (3%)	13 (11%)
Comp (n=70)	17 (24%)	4 (6%)	5 (7%)	18 (26%)	21 (30%)	1 (1%)	-0- -0-	15 (21%)
POSTTEST								
Expt (n=116)	33 (28%)	16 (14%)	10 (9%)	32 (28%)	10 (9%)	9 (8%)	3 (3%)	10 (9%)
Comp (n=70)	18 (26%)	10 (14%)	6 (9%)	7 (10%)	21 (30%)	-0- -0-	1 (1%)	11 (16%)

*A child's story could contain more than one disability type.

** % is number of responses in this category divided by total number of subjects.

- More experimental subjects continued to write make-believe stories rather than true ones, whereas more comparison subjects continued to write true stories rather than make-believe ones.

- More comparison than experimental subjects who did not write about the disabled schoolmate on the pretest wrote about the schoolmate on the posttest.

Definitions of Disability Labels

Frequency distributions of pre and posttest responses to the definition items were examined to determine response changes from pre to post and differences in these changes between experimental and comparison groups. Chi-Square tests were computed for those items which indicated substantial differences in change scores between experimental and comparison groups.

Sample

In Phase I there were 16 children from the final sample (N = 203), 12 from the experimental group and 4 from the comparison group, who were missing a pre or a posttest on the definitional items due to administration of these items separately from the attitude items during Phase I. Thus the total N for the analyses of the definitional items is 187; the experimental group contains 117 subjects and the comparison group contains 70 subjects.

Responses to the following disability labels were examined: (1) "Handicapped/Disabled," (2) "Blind," (3) "Deaf," (4) "Dwarf," (5) "Retarded," (6) "Crippled (uses crutches or a wheelchair)," (7) "Cerebral Palsy," and (8) "Dyslexia."

(1) Handicapped/Disabled

During Phase I children responded to "handicapped" and "disabled" separately, thus the results for these items are presented separately for Phase I and Phase II.

Phase I: Handicapped

The most frequently included definitions for "handicapped" for the experimental and comparison groups on pre and posttest were: "one or more examples," and "something wrong." In addition, "can't do some things" was frequently chosen on pre and posttests by the experimental group, and "needs help" was frequently chosen on pre and posttests by the comparison group. There were only slight changes from pre to posttests for both groups. The distribution of the definitional categories for "handicapped" on pre and posttests indicated no significant differences between experimental and comparison groups. The results are presented in Table 8.

Phase I: Disabled

The responses for "disabled" were substantially the same as those for

Table 8

Definitions: Handicapped (Phase I)* **

	One or more ex	Something Wrong	Can't do Some things	Needs Help	Misc	N/A
PRETEST						
Expt (n = 62)	26 (42%)	12 (19%)	10 (16%)	1 (2%)	9 (15%)	5 (8%)
Comp (n = 38)	13 (34%)	7 (18%)	2 (5%)	6 (16%)	9 (24%)	4 (11%)
POSTTEST						
Expt (n = 62)	22 (35%)	17 (27%)	10 (16%)	-0- -0-	12 (19%)	5 (8%)
Comp (n = 38)	11 (29%)	6 (16%)	5 (13%)	5 (13%)	7 (18%)	6 (16%)

*A child's definition could include more than one definitional category.

** % is number of responses in this category divided by total number of subjects.

"handicapped." The only difference was that "can't do some things" was frequently chosen by the experimental group as well as the comparison group on pre and posttests. There were only slight changes from pre to posttests for both groups. The only exception was a decrease of approximately 19% in "one or more examples" for both groups. However, due to confusion in filling out this item, the children were not encouraged to respond if they had difficulties, especially on the posttest. Thus, almost half of the

posttest responses were "N/A," a gain of approximately 26%. The distribution of the definitional categories for "disabled" on pre and posttests indicated no significant differences between experimental and comparison groups. The results are presented in Table 9.

Table 9

Definitions: Disabled (Phase I)* **

	One or more ex	Something Wrong	Can't do Some things	Needs Help	Misc	N/A
PRETEST						
Expt (n = 62)	20 (32%)	4 (7%)	18 (29%)	-0- -0-	12 (19%)	12 (19%)
Comp (n = 38)	8 (21%)	4 (11%)	7 (18%)	1 (3%)	14 (37%)	6 (16%)
POSTTEST						
Expt (n = 62)	7 (11%)	3 (5%)	19 (31%)	1 (2%)	6 (10%)	26 (42%)
Comp (n = 38)	2 (5%)	3 (8%)	11 (29%)	1 (3%)	4 (11%)	17 (45%)

*A child's definition could include more than one definitional category.
** % is number of responses in this category divided by total number of subjects.

Phase II: Handicapped/Disabled

Similar to the separate responses to these terms, the most frequent response for both groups on pre and posttests was "one or more examples."

In the experimental group, the responses "something wrong" and "can't do some things" were also chosen frequently. However, the other responses were distributed sparsely among the remaining categories, with many children not responding to this item pre or post. Most dramatic is that 50% of the comparison group did not respond to this item on the posttest. There were no substantial differences between the experimental and comparison groups in the distribution of the definitional responses for "handicapped/disabled" on pre or posttests. The only exception was an increase of 22% in "N/A" for the comparison group compared with an increase of 5% in "N/A" for the experimental group. The results are presented in Table 10.

(2) Blind

The majority of children in both experimental and comparison groups provided the correct answer, "can't see," to the item "blind" on pre and posttests. Seven of the 8 experimental children who could not define "blind" on the pretest were successful in defining "blind" on the posttest. Similarly, all 3 children in the comparison group who could not define "blind" on the pretest were successful in defining "blind" on the posttest. (However, it should be noted that a few children in both groups who responded correctly on the pretest neglected to answer the item or gave an incorrect response on the posttest.) The results are presented in Table 11.

(3) Deaf

The majority of children in both experimental and comparison groups provided the correct answer, "can't hear,"to the item "deaf" on pre and

Table 10

Definitions: Handicapped/Disabled (Phase II)* **

	One or more ex	Something Wrong	Can't do Some things	Needs Help	Misc	N/A
PRETEST						
Expt (n = 55)	31 (56%)	7 (13%)	10 (18%)	2 (4%)	8 (15%)	8 (15%)
Comp (n = 32)	19 (59%)	-0- -0-	1 (3%)	-0- -0-	3 (9%)	9 (28%)
POSTTEST						
Expt (n = 55)	26 (47%)	7 (13%)	7 (13%)	-0- -0-	7 (13%)	12 (22%)
Comp (n = 32)	14 (44%)	-0- -0-	-0- -0-	-0- -0-	2 (6%)	16 (50%)

*A child's definition could include more than one definitional category.

** % is number of responses in this category divided by total number of subjects.

Table 11

Definitions: Blind

	Incorrect/ N/A	Correct	Total
PRETEST			
Expt	8 (7%)	109 (93%)	117
Comp	3 (4%)	67 (96%)	70
POSTTEST			
Expt	5 (4%)	112 (96%)	117
Comp	2 (3%)	68 (97%)	70

	Expt	Comp	Total
CHANGE SCORES			
Incorrect/N/A→ Correct	7 (6%)	3 (4%)	10
No Change	106 (91%)	65 (93%)	171
Correct→ Incorrect	4 (3%)	2 (3%)	6
Total	117	70	187

posttests. However, the percentage of correct answers was slightly less than the correct answers for the term "blind." Eight of the 12 experimental children who could not define "deaf" on the pretest were successful in defining "deaf" on the posttest. Similarly, in the comparison group, 4 of the 5 children who could not define "deaf" on the pretest were successful in defining "deaf" on the posttest. (However, it should be noted that a few children in both groups who responded correctly on the pretest neglected to answer the item or gave an incorrect response on the posttest.) The results are presented in Table 12.

(4) Dwarf

Although the majority of the experimental group provided the correct answer, a reference to small size, to the item "dwarf" on the pretest (62%), a substantial number could not define "dwarf" on the pretest (38%). On the other hand, the majority of the comparison group could not define "dwarf" on the pretest (61%).

A change score analysis indicates that 32% of the experimental group and 24% of the comparison group who were incorrect on the pretest were correct on the posttest. This difference between groups was not significant. The results are presented in Table 13.

Table 12

Definitions: Deaf

	Incorrect/ N/A	Correct	Total
PRETEST			
Expt	12 (10%)	105 (90%)	117
Comp	5 (7%)	65 (93%)	70
POSTTEST			
Expt	8 (7%)	109 (93%)	117
Comp	3 (4%)	67 (96%)	70

	Expt	Comp	Total
CHANGE SCORES			
Incorrect/N/A→ Correct	8 (7%)	4 (6%)	12
No Change	105 (90%)	64 (91%)	169
Correct→ Incorrect	4 (3%)	2 (3%)	6
Total	117	70	187

Table 13

Definitions: Dwarf

PRETEST	Incorrect/ N/A	Correct	Total
Expt	45 (38%)	72 (62%)	117
Comp	43 (61%)	27 (39%)	70

POSTTEST			
Expt	8 (7%)	109 (93%)	117
Comp	30 (43%)	40 (57%)	70

CHANGE SCORES	Expt	Comp	Total
Incorrect/N/A → Correct	32 (32%)	17 (24%)	55
No Change	78 (67%)	50 (71%)	128
Correct → Incorrect/N/A	1 (1%)	3 (4%)	4
Total	117	70	187

(5) Retarded

On pre and posttests almost one quarter of the experimental group, and over one quarter of the comparison group, did not even attempt a definition for "retarded." Of those subjects who responded to the item, the most frequently included response for both groups on pre and posttest was "slow thinking." However, tying for second ranking for both groups pre and post was the response "dumb, stupid, crazy." The other second ranking was the response "can't do some things." The rest of the responses were fairly evenly distributed among a variety of categories such as "can't do anything," "can't spell or read," "can't speak/talk well," and "handicapped," as well as others in the "misc" category. There were no substantial changes in these categories from pre to posttest for either the experimental or the comparison groups. The results are presented in Table 14.

(6) Crippled (uses Crutches or a Wheelchair)

During Phase I children responded separately to the disability terms "uses crutches" and "uses a wheelchair" whereas during Phase II children responded to the item "crippled (uses crutches or a wheelchair)." Thus the results for these items were analyzed separately for Phase I and II. A comparison of the results is presented below. The responses for each item were distributed among 4 categories. On each of the 3 items, the majority of children (approximately 65%) in both experimental and comparison groups on pre and posttests responded "can't walk."

Table 14

Definitions: Retarded* **

	N/A	Slow Thinking	Dumb Stupid	Can't do Some things	Misc
PRETEST					
Expt (n = 117)	24 (21%)	42 (36%)	15 (13%)	14 (12%)	35 (30%)
Comp (n = 70)	20 (29%)	12 (17%)	9 (13%)	8 (11%)	25 (36%)
POSTTEST					
Expt (n = 117)	24 (21%)	47 (40%)	12 (10%)	18 (15%)	22 (19%)
Comp (n = 70)	23 (33%)	14 (20%)	9 (13%)	9 (13%)	18 (26%)

* A child's definition could include more than one definitional category.
** % is number of responses in this category divided by total number of subjects.

On the item "crippled," there were no substantial changes from pre to post for either group, and the distribution of answers was substantially the same for both groups. On the item "uses crutches" there was an increase in both groups from pre to post on "can't walk" responses (approximately 15%) and a decrease in "broken leg" responses (5% for experimental and 16% for comparison group). And, the experimental group increased slightly in "N/A" responses whereas the comparison group stayed the same.

On the item "uses a wheelchair" the experimental group increased more than the comparison group on "can't walk" responses (19% compared with 3%).

The experimental group decreased in "N/A" responses (7%) but the comparison group increased (8%). The distribution of all other responses for "uses crutches" and "uses a wheelchair" was substantially the same for both groups on pre and posttests. The results are presented in Table 15.

(7) Cerebral Plasy

The majority of children in both experimental and comparison groups could not define "cerebral palsy" on either pre or posttests. However, there was a significant amount of gain (almost one-quarter of the children) in correct answers in the experimental group as compared with the comparison group on the posttest ($\chi^2(2) = 15.42$, $p<.001$). The results are presented in Table 16.

(8) Dyslexia

The majority of children in both experimental and comparison groups could not define "dyslexia" on either pre or posttests. However, there was a significant amount of gain (32% of the children) in correct answers in the experimental group as compared with the comparison group on the posttest ($\chi^2(1) = 27.60$, $p<.001$). The results are presented in Table 17.

Conclusion of Definitional Items:

A comparison of experimental and comparison groups' frequency distributions of pre and posttest responses to the definitional items indicates:

- Children's definitions of "handicapped/disabled" are distributed

Table 15

Definitions: Crippled (Uses Crutches or a Wheelchair)* **

	PRETEST					POSTTEST			
	Can't Walk	Broken Leg	Misc	N/A		Can't Walk	Broken Leg	Misc	N/A
Uses Crutches (Phase I)									
Expt (n=62)	36 (58%)	16 (26%)	12 (19%)	2 (3%)	Expt (n=62)	44 (71%)	13 (21%)	2 (3%)	6 (10%)
Comp (n=38)	17 (45%)	20 (50%)	2 (5%)	2 (5%)	Comp (n=38)	23 (61%)	14 (37%)	1 (3%)	1 (3%)
Uses a Wheelchair (Phase I)									
Expt (n=62)	36 (58%)	8 (13%)	12 (19%)	9 (15%)	Expt (n=62)	48 (77%)	6 (10%)	5 (8%)	5 (8%)
Comp (n=38)	32 (84%)	3 (8%)	3 (8%)	-0- -0-	Comp (n=38)	33 (87%)	2 (5%)	1 (3%)	3 (8%)
Crippled (uses crutches or a wheelchair) (Phase II)									
Expt (n=55)	36 (66%)	-0- -0-	10 (18%)	7 (13%)	Expt (n=55)	34 (62%)	2 (4%)	4 (7%)	9 (16%)
Comp (N=32)	18 (56%)	1 (3%)	2 (6%)	7 (22%)	Comp (n=32)	18 (56%)	1 (3%)	1 (3%)	10 (31%)

*A child's definition could include more than one definitional category.

** % is number of responses in this category divided by total number of subjects.

Table 16

Definitions: Cerebral Palsy

PRETEST			
	Incorrect/ N/A	Correct	Total
Expt	110 (94%)	7 (6%)	117
Comp	68 (97%)	2 (3%)	70

POSTTEST			
Expt	86 (74%)	31 (26%)	117
Comp	69 (99%)	1 (1%)	70

CHANGE SCORES			
	Expt	Comp	Total
Incorrect/N/A→ Correct	26 (22%)	1 (1%)	27
No Change	89 (76%)	67 (96%)	156
Correct→ Incorrect/N/A	2 (2%)	2 (3%)	4
Total	117	70	187($X^2(2) = 15.42$, $p<.00$

Table 17

Definitions: Dyslexia

	Incorrect/ N/A	Correct	Total
PRETEST			
Expt	117 (100%)	-0- --	117
Comp	70 (100%)	-0- --	70
POSTTEST			
Expt	80 (68%)	37 (32%)	117
Comp	70 (100%)	-0- --	70

CHANGE SCORES	Expt	Comp	Total
Incorrect/N/A→ Correct	37 (32%)	-0- --	37
No Change	80 (68%)	70 (100%)	150
Total	117	70	187

($\chi^2(1) = 27.60$, $p<.001$)

among a variety of categories. The most frequent definitional response is to give one or more examples or to respond "something wrong" or "Can't do some things." Only slight changes occur in these categories from pre to post and the distribution of response categories is substantially the same for experimental and comparison groups on pre and posttests.

- Most children know the definitions of the disability labels "blind" and "deaf."

- Approximately one-quarter of both the experimental and comparison groups who could not define "dwarf" on the pretest correctly defined "dwarf" on the posttest.

- Approximately one-quarter of both the experimental and comparison groups did not even attempt to define "retarded" on pre or posttests. Of those who responded, the most frequently given definitions were in the response category "slow thinking." However, definitions in the response category "dumb, stupid, crazy" were the second most frequently given definitions. There were no substantial differences in the distribution of response categories for experimental and comparison groups on pre and posttests.

- Compared with the definitional responses to "blind" and "deaf," there was more variety among the definitions for "crippled (uses crutches or a wheelchair)" (65% of the definitions included the response "can't walk"). This probably reflects the greater heterogeneity within this disability category. The distribution of response categories was substantially the same for the experimental and comparison groups on pre and posttests.

- Significantly more children in the experimental group as compared with the comparison group who could not define "cerebral palsy" or "dyslexia" on the pretest correctly defined "cerebral palsy" and "dyslexia" on the posttest.

Familiarity Index

Frequency distributions of pre and posttest responses to the familiarity index were examined to determine response changes from pre to post and differences in the distribution of scores between experimental and comparison groups. Chi-Squares were computed for those items which indicated substantial differences.

Sample

Only subjects who responded on both pre and posttests with the number of handicapped people they had "just seen" or "knew well" in Phase I, and the number of handicapped people in their "family" or that they "know or play with" in Phase II, were included in these analyses. The reduced sample size for Phase I is N = 101, 63 in the experimental group and 38 in the comparison group. The reduced sample for Phase II is N = 88, 56 in the experimental group and 32 in the comparison group.

Number of Handicapped People "Just Seen" or "Know Well" (Phase I).

In both experimental and comparison groups on pre and posttests approximately 13% had not just seen any handicapped people, approximately 27% had just seen 1 or 2 handicapped people, approximately 24% had just

seen 3, 4 or 5 handicapped people, and approximately 36% had just seen more than 5 handicapped people. There were no substantial differences between experimental and comparison groups on the pretest. But on the posttest, the comparison group increased in the number of handicapped people known (a shift from the "3-4-5" category to the ">5" category), whereas the experimental group did not change. The results are presented in Table 18.

In both experimental and comparison groups on pre and posttests approximately 12% did not know any handicapped people well, approximately 30% knew 1 or 2 handicapped people well, approximately 25% knew 3, 4, or 5 handicapped people well, and approximately 33% knew more than 5 handicapped people well. On pre and posttests the comparison group reported knowing more handicapped people well than did the experimental group. There were no substantial changes from pre to posttests. The results are presented in Table 19.

Number of Handicapped People in "Family" or "Know/Play With" (Phase II)

Approximately 18% of the experimental group and 28% of the comparison group reported having 1, 2 or 3 handicapped people in their family. (There were a few children in both groups who "gained" or "lost" a family

Table 18

Familiarity Index: Handicapped People Just Seen (Phase I)

	PRETEST					POSTTEST			
	-0-	1 or 2	3-4-5	>5		-0-	1 or 2	3-4-5	>5
Expt (n=63)	10 (16%)	17 (27%)	13 (21%)	23 (37%)	Expt (n=63)	10 (16%)	16 (25%)	16 (25%)	21 (33%)
Comp (n=38)	3 (8%)	11 (29%)	12 (32%)	12 (32%)	Comp (n=38)	4 (11%)	10 (26%)	7 (18%)	17 (45%)

Table 19

Familiarity Index: Handicapped People Know Well (Phase I)

	PRETEST					POSTTEST			
	-0-	1 or 2	3-4-5	>5		-0-	1 or 2	3-4-5	>5
Expt (n=63)	6 (10%)	23 (37%)	19 (30%)	15 (24%)	Expt (n=63)	10 (16%)	18 (29%)	16 (25%)	19 (30%)
Comp (n=38)	2 (5%)	13 (34%)	7 (18%)	16 (42%)	Comp (n=38)	6 (16%)	7 (18%)	8 (21%)	17 (45%)

member from pre to posttest.) The results are presented in Table 20.

Table 20

Familiarity Index: Handicapped People in Family (Phase II)

PRETEST			POSTTEST					
	-0-	1-3		-0-	1-3		Expt	Comp
Expt (n=56)	46 (82%)	10 (18%)	Expt (n=56)	46 (82%)	10 (18%)	Increased	1 (2%)	2 (9%)
Comp (n=32)	23 (72%)	9 (28%)	Comp (n=32)	23 (72%)	9 (28%)	No Change	55 (98%)	27 (84%)
						Decreased	-0- -0-	3 (9%)

Approximately 16% of the experimental group and 30% of the comparison group reported that they did not know or play with any handicapped people. Approximately 64% of the experimental group and 34% of the comparison group reported they knew or played with one or two handicapped people. And the remaining approximately 20% of the experimental group and 36% of the comparison group knew 3 or more handicapped people. Change scores for this item indicate that in the experimental group 27% of the subjects reported knowing more handicapped people on the post than the pretest and 11% reported knowing fewer. In the comparison group 34% reported knowing more handicapped

people on the posttest and 34% reported knowing fewer. This difference in change scores between the experimental and comparison groups is significant ($X^2(2) = 10.14$, $p>.01$).The results are presented in Table 21.

Table 21

Familiarity Index: Handicapped People Know or Play With

PRETEST				POSTTEST						
	-0-	1-2	≥3		-0-	1-2	≥3		Expt	Comp
Expt (n=56)	10 (18%)	38 (68%)	8 (14%)	Expt (n=56)	8 (14%)	34 (61%)	14 (25%)	Increased	15 (27%)	11 (34%)
Comp (n=32)	11 (34%)	8 (25%)	13 (41%)	Comp (n=32)	8 (25%)	14 (44%)	10 (31%)	No Change	35 (63%)	10 (31%)
								Decreased	6 (11%)	11 (34%)

Type of Experience with Handicapped People (Phase II)

In experimental and comparison groups, all but one or two subjects in each group who reported having a handicapped family member reported liking that person(s) "a lot" on pre and posttests. The one or two children in each group who differed responded liking the person "a lot" on the pretest but "a little" on the posttest. The results are presented in Table 22.

Table 22

Familiarity Index: Type of Experience With Handicapped Family Members

PRETEST

	N/A	Not At All	A Little	A Lot
Expt (n=56)	46 (82%)	-0- -0-	-0- -0-	10 (18%)
Comp (n=32)	23 (72%)	-0- -0-	-0- -0-	9 (28%)

POSTTEST

Expt (n=56)	46 (82%)	-0- -0-	1 (2%)	9 (16%)
Comp (n=32)	24 (75%)	-0- -0-	2 (6%)	6 (19%)

On the pretest in both experimental and comparison groups, most children who knew or played with handicapped people liked them "a little" rather than "a lot" and there were only 2 children, from the experimental group, who reported liking them "not at all." On the posttest there was a slight increase in those who liked the handicapped people "a lot" and the comparison group increased to a somewhat greater extent than the experimental group. The results are presented in Table 23.

Table 23

Familiarity Index: Type of Experience With Handicapped People "Know or Play With"

	N/A	Not at All	A Little	A Lot
PRETEST				
Expt (n=56)	12 (21%)	2 (4%)	29 (52%)	13 (23%)
Comp (n=32)	11 (34%)	-0- -0-	13 (41%)	8 (25%)
POSTTEST				
Expt (n=56)	8 (14%)	5 (9%)	28 (50%)	15 (27%)
Comp (n=32)	8 (25%)	1 (3%)	10 (31%)	13 (41%)

APPENDIX E

CHILDREN'S STORIES

I have a friend and she isa handicap. She has to sit in a wheel chear. Her name is Kim and she likes to be in a Wheelchear. But most of the time she hates to be in a wheelchear. This is why she likes to be in a wheelchear because. she gos faster when she rans and this is why she hates to be in a wheelchear because, people call her names, and she can not play some games.

Someone who is disabled to Do, something we Do or some people can't see the Thing we can see. Some can't even walk Like we can.

I once new a person who was unable to walk

make believe

one day a kid named
one day. one day one day
he was roling in his weel
chare,
and all of the sudin.....
.....
.....
he fell of a.....
.....clif and.....
.....
the
end

Once there was a kid he was Handikaped and he could do anything a regular person could do. Like jumps, skip, run, play games, hop, gallop. But he cold do alot. But he would alwad's fall down. And then he would say Nobody's perfect.

Once there was a boy named Sean. This boy was blind, deaf, could not talk, walked on crutches and in a ~~whole wheelate~~ wheel chair. Sean ~~whole~~ was'nt very happy. One ~~But~~ day Sean wanted to play baseball. Sean was a inventor even though he was disabled So he invented a raidar ~~Raaar~~ so he could play. His his first hit was a home run. So he became on the Lexington Little ~~League~~ League

Once I was in Africa and a hole bunch of poople were starving. In this place there were no carrots. ::Thus nobody could see very good.

Ther was one kid who was blind. She was really nice I stayed there for 6 months and she was my best friend there.

Her name was Aloo. She could do evrything I could I used to think Blind people were stuped BUT I don't now. the End

Makebelieve.

Once there was a girl named cindy she Lives in Calafrna she is in a wheel chair she has no use of her hands so in the time She has spent in her wheel chair she has learnd to use her feet like hands she can put a fork beten her tows and bring its up to her mouth and she can eten tie her shows with her feet.

made up

bob my freind has serebal balsy in his arms. and he goes to a special school where the teacher writes for him every day in school he tikes a class ~~stread~~ in using a machien that lets him write with his feet.

It is the year 2000. All things Are changed exept for one. There are no stairs for people Confined to wheelchairs. No sky policemen Will stopu Airebourne Cars long enough for even a crippil on retro rockets to get across an elevator crosswalk. But JohnFitzimonns is not disabled but he intend to help his freind Bill do these things too He will Stop at nothing till he gets rights for the disabled.

Once there Was a kid who was handicapped, and decided to go to a stream and fish. But he was in a wheelchair, so he couldnt go through the woods and down the bank to the stream.
But then he got an idea. He wheeled to his room and picked some odds and ends out of his closet Among these items were a propeller, 1171 little "Hot Wheels" car engines, 200 juice boxes and put them on his wheelchair. He then flew to the stream and fished.

Joe was crippled and always had trouble doing things that other people can do easily.

Steve was a dwarf and felt the same way about his handicap as Joe felt about his.

One day they meet at a fair. Joe wanted a drink but the line was long and he thought he might get knocked down so Steve walked through peoples legs and got it for him.

Joe saw people teasing Steve and were also about to hit Steve. So he smashed them with his crutch.

They both felt
better because
knew they could
help other people.

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